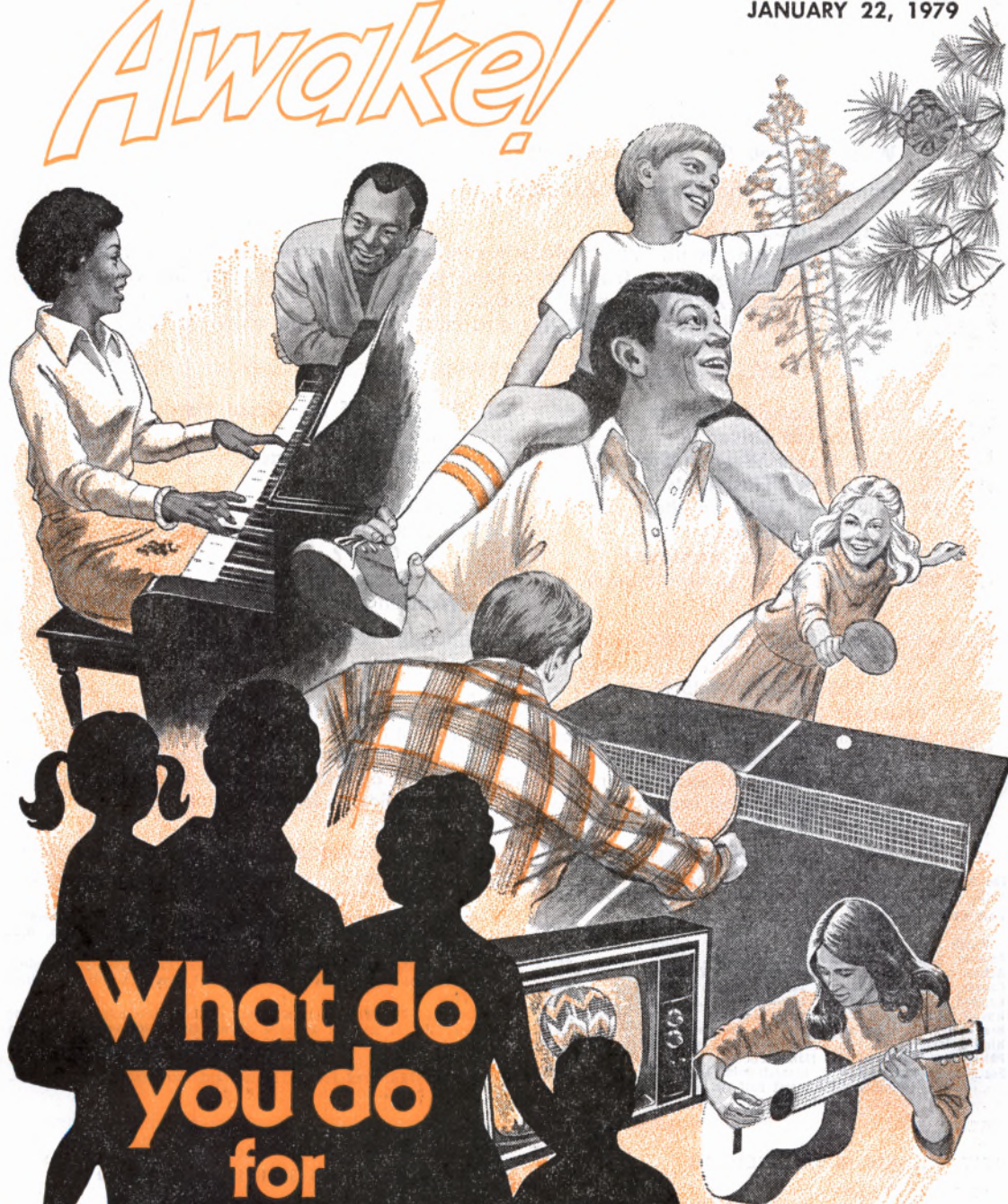


Awake!

JANUARY 22, 1979



**What do
you do
for
ENTERTAINMENT?**

FEATURE ARTICLES

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Recreation should have a place in everyone's life. How can you get what you need—without traveling a long way, and without spending a lot of money? Also, what problems should be avoided so that you will really feel refreshed? You'll find this and much more in the above series

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WHY THIS MAGAZINE IS PUBLISHED

"Awake!" is for the enlightenment of the entire family. 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 stays politically neutral and does not exalt one race above another. It also shows how to cope with today's problems. Most importantly, "Awake!" builds confidence in the Creator's promise of a peaceful and secure new order within our generation.

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“ALL work and no play makes Jack a dull boy” is not just an empty expression. The right kind of entertainment can refresh the mind and heart. It can bring pleasure, and relieve boredom by adding interest to life. Thus it can be seen why entertainment is defined as “an agreeable occupation for the mind.”

Entertainment may be simple and enjoyed by one person, or by just a few. Then, again, it may be more formal and public, coming in large gatherings or performances at theaters or ball parks.

Really, almost anything can be a source of entertainment to a person if he so de-

sires. It is a very personal matter, because individual likes and dislikes are different. What may bring pleasure to *you* may be monotonous to *me*. What is stimulating to *him* may be boring to *her*.

Expensive

Entertainment has become big business nowadays. In the United States alone, spending on leisure-time activities amounts to nearly \$200,000,000,000 each year. That makes it the nation's number one industry when measured by people's spending! As an example, well over 300 million people attended sporting events last year.

But such commercial entertainment is expensive. Does that touch home? Have you sometimes been startled over the cost of tickets for a motion picture, a concert or a ball game, or the outlay for a new television set? The fact that entertainment can take such a large bite out of your finances may be reason to consider what else you could do. You might find certain alternatives just as rewarding, perhaps even more so, but easier on your pocket-book.

Thinking a bit more about entertainment, though, will reveal that in some ways the cost may be even higher than the money involved. Some forms of entertainment contain a heavy dose of violence, immorality or gambling, things identified in the Scriptures as contrary to God's laws or principles of behavior.

Even if entertainment is not unwholesome, it can be engaged in excessively. This can center the mind too much on the pursuit of pleasure. Likely you know people whose life is like that. They are in a constant race after some sort of entertainment. Their talk is almost riveted to that subject. But this excessive love of pleasure can kill 'the spiritual person,' causing him to turn aside from the way of life approved by God.

This does not come as a surprise to those who keep alert to the fulfillment of Bible prophecy. It foretold that one of the characteristics of our time would be people's being "lovers of pleasures rather than lovers of God."—2 Tim. 3:4.

Other Pitfalls

Another problem with some entertainment, especially with some commercial entertainment, is that it often fails to refresh or satisfy. For example, some who favor

one team in a sporting event often become dejected, frustrated, even angry, when that team loses. The event did not bring them any real joy.

Also, commercial entertainment can place more emphasis on *watching* than on *doing*. Instead of your being a participant you are a passive onlooker. This can take a toll in a person's health and in his ability to interact with other people.

Then there is this problem with some types of entertainment: the unpredictable conduct of others who might be present. Just think of what you may have read about or viewed among spectators at some rock-music concerts. And what about the riots by angry fans at certain ball games, resulting in injury and even death? Yes, the spectators become participants at such times, but participants in mayhem rather than in entertainment.

Some may solve the problem of being among undesirable groups of people by watching such performances only on television. They prefer to enjoy them in the comfort of their own home, rather than among a rowdy crowd at a stadium or auditorium. One advantage of this is that it allows a person to reject the entertainment immediately if he finds it undesirable—provided he has the willpower and moral integrity to do so. Yet, despite certain advantages, the television viewer is still just another onlooker, not a participant.

Various forms of commercial entertainment no doubt have their place, and can be properly enjoyed. But what alternatives are there that would give special consideration to things in which we can be participants? What are some of the alternate forms of entertainment that can be most enjoyable, perhaps even more upbuilding, and that do not cost so much?



Don't Ignore the Need for Entertainment

TOO LITTLE IS AS BAD AS TOO MUCH

IN TIMES past when the work ethic was held in high regard, many viewed play as a waste of time. Now the pursuit of pleasure is for many the main purpose in life. However, work and play should balance each other.

The right kind of work gives meaning and purpose to life. Proper play refreshes the tired worker, is a welcome change that re-creates a zest for more work. Too much work over too long a time exhausts the body and depresses the spirit. Extended vacations that go beyond the refreshment needed become boring. Don't overdo the one while ignoring the other.

We should not make the mistake that the Puritans did and view all fun as wrong.



Eating is not to be condemned because of gluttony. Drinking is not outlawed because of drunkenness. Nor should entertainment be frowned on because extremists abuse it. Our concern should not be rejecting entertainment, but, rather, determining the right kinds and the right amounts.

Enjoying the Outdoors

People are turning to beaches, mountains and parks in such vast numbers that

in some places overcrowding is becoming a problem. Yet these areas do offer an infinite variety of entertainment—walking, swimming, jogging, backpacking, camping, picnicking, nature study, and so on.

But it is not necessary to travel such distances. Many live where woods are nearby. Even in the backyard, birdhouses and bird-feeding stations can be erected. Or lie on your stomach sometime and observe a square foot of grass or weeds, and you will be amazed at all the activity of bugs and ants and spiders that will fascinate you. Do you live in a big city, an asphalt jungle? Even there, parks and zoos are available. Museums and planetariums delight and instruct.

Parents, plan such activities for your children. Give them some direction, some stimulus by pointing out the possibilities. Maybe you can tell them the life cycle of a butterfly or an ant. Satisfy your children's curiosity about Jehovah's creation. This is an entertaining way of interesting your children in Jehovah God and his earthly creations, teaching them about his purpose for earth and for them as earth's caretakers. Do as Job 12:7-10 recommends: "Ask, please, the domestic animals, and they will instruct you; also the winged creatures of the heavens, and they will tell you. Or show your concern to the earth, and it will instruct you; and the fishes of the sea will declare it to you."

Sometimes work itself is a recreation. A man working in an office, or a student poring over books all week, may find working in the yard relaxing, or the establishing of a small garden a satisfying project. Even in a big city there might be a small plot of ground available. Or a window box where some flowers or herbs might be grown. Many people find indoor plants a fascinating hobby that adds beauty to the home. Canaries or other birds may be kept indoors. Aquariums are fascinating projects.

There are many ways of bringing Jehovah's interesting creations indoors for study and entertainment. Here again it is a matter of using some imagination, and of parents directing the interests of children into the various possibilities.

Hobbies

Small children delight in making mud pies! Mothers are not too enthused about this, however. But it is simply dirt, and water easily eliminates it. This fun can be turned into a hobby as the child gets a little older. The mud can become clay and the pie can become pottery. This is quite an interesting handicraft, one long practiced with great instinctive skill by different members of the wasp family. (One is even called "the potter wasp.") Other hobbies could be making macrame hangers for flowerpots, projects in sewing, knitting, cooking, leatherwork involving braiding and embossing, and many others.

"Window shopping" is an activity that makes many strong men tremble, but many women and girls relish it. Mothers can even make it instructive. Prices, quality, bargains and economic principles can be discussed. It is also an inexpensive excursion, especially if it is indulged in when the stores are closed.

Another interesting source of entertainment that is also educational is visiting factories. Take the family through a printing establishment, a newspaper office, a textile plant, a chocolate factory, an automobile plant or a coal mine. Many factories conduct tours, and to see how many everyday products are manufactured is extremely interesting and entertaining. A trip through a steel mill, for example, could easily become the subject for a written or oral report in the classroom.

Strictly for Fun

Entertainment does not always have to be educational. It may be just for the fun

of it. This will also have value. It will recreate and refresh both young and old for the more serious affairs of life.

However, people's interests differ. What interests one may bore another. A person's sex can also make a difference in his or her interests. Also one's age! Older persons should not think the young will always be content to sit and talk or read or play checkers just because they are. Teen-agers are bursting with energy that needs release. They may crave a game of baseball, volleyball, badminton, handball, basketball, soccer, or some other active recreation.

Maybe two or more families can go to the park and have a picnic. Afterward those who wish may visit and talk, others with pent-up energy may release it by means of one of these games. If there is good-natured competition no harm is done; but if winning becomes all-important then arguments are raised and the fun is spoiled.

Smaller children may find swings to play on, or a sandbox to use. Even empty cartons or a few sticks or blocks of wood become houses or caves, or airplanes or cars, or whatever the children's active imagination chooses to make them. Many times expensive toys lie idle as children spend all afternoon on a sandpile or playing with a large carton, their imaginations turning these into whatever suits their fancy of the moment. A plastic fire truck costing 20 dollars is always a fire truck. But a big cardboard box—Ah! that can be anything!

Adults enjoy watching children play, or watching the ball game others are playing, and maybe even joining in as they feel up to it. Families together in this way become better families, more closely knit, and generation gaps are avoided. Also, this arrangement provides for supervision where it is needed. If all are in agreement as to the worship of their Creator, then the spoiling of good habits by bad association is avoided. (1 Cor. 15:33)

Congregations may increase in brotherly love and understanding when families not only study and preach together but also enjoy clean recreation together.

Music and Dancing

Some family members may be musically inclined. Learning to play an instrument is challenging and satisfying, and may also become a source of entertainment to listeners. If two or three or more from Christian families do this, they may eventually play together both for their enjoyment and for the pleasure of listeners. Others may even wish to dance to the music that is played.

There is nothing wrong with music, singing or instrumental, or with dancing. Instrumental music and singing were involved in Jehovah's worship in Israel. Young and old danced to music, sometimes singly and at other times in group dances. (Ex. 15:20; Ps. 87:7; 149:3; 150:4; Judg. 11:34; Jer. 31:13; Matt. 11:17; Luke 15:25) On one of these occasions an objection was raised to vigorous dancing, but not with Jehovah's approval.—2 Sam. 6:20.

However, dancing is like the eating and drinking mentioned earlier: it may be good or bad, depending on the control exercised. Music may be soft and flowing, or it may have a strong beat, but it should not be raucous or so loud that it endangers a person's hearing or disturbs others. The dancing is not good or bad depending on whether it is slow or fast, but if it becomes sexually suggestive or stimulating, it goes beyond proper entertainment!

Experience has established the need of proper supervision for such occasions, not, of course, to curtail proper clean, innocent fun but to curb extremes that imperil Christian morality. Even the waltz can become immoral in certain environments. Folk dances, square dances and most modern dances can be properly enjoyed,

but, in wrong surroundings, they can also degenerate.

Reading and Conversation

There are good books and magazine articles that can entertain, but there are also those that damage morality. The latter should "not even be mentioned among you" who are Christians. The standard should be those things that are true, virtuous and praiseworthy.—Eph. 5:3; Phil. 4:8.

The same guideline would apply to movies and television. There are still some motion pictures that are clean and properly entertaining, but they are becoming the exception rather than the rule. Many television programs still are relaxing and educational. Documentaries cover science, natural history, current happenings and other interesting fields. They, along with good reading, equip us to converse enjoyably with one another.

Converse? Yes, conversation is not dead. The desire for it is still shown by the popularity of television talk shows. But many people seem no longer able to converse interestingly. They talk but do not communicate stimulating thoughts and ideas. However, even such persons can be drawn out to reveal interesting facts about themselves. Their childhood, their first job, why they decided on their particular career,

how they came to accept their religion—questions drawing them out on such topics result in surprisingly interesting conversations.

If we are perceptive, courteous, tactful and sincerely complimentary, others who normally are quiet will respond and communicate freely. Being interested in them makes you interesting to them. Soon a two-way, or four- or six-way conversation is flowing along, to the enjoyment of all participants. Conversation fascinated the Greeks and their visitors in the first century of our Common Era: "All Athenians and the foreigners sojourning there would spend their leisure time at nothing but telling something or listening to something new."—Acts 17:21.

Read, observe, listen, think and you will have fresh new thoughts to contribute to entertaining conversations. Avoid being argumentative or dogmatic. That kills communication. Be pleasant and tasteful, a delightful conversationalist.—Prov. 15:1; 16:21-24; 25:11; Eccl. 12:10; Col. 4:6.

In conclusion, don't just deny objectionable entertainment. Give suitable alternatives. If your religion blanketly condemns all entertainment, your children will leave you and it as soon as possible. So don't leave an entertainment vacuum. (Matt. 12:43-45) The following article offers additional entertainment possibilities.

Some Thoughts for the Sensible Driver

In a recent survey, 80 out of 100 drivers admitted losing ability to concentrate after driving long distances without a break. Some are overcome by a form of tiredness after 200 kilometers, others after 500 (124 and 311 miles) of driving without interruption. A definite connection has been discovered between signs of tiredness, physical performance and wrong eating habits.

Hence, for safer driving, the German Society for Nutrition recommends:

- Get a good rest before a longer trip. Never start out on an empty stomach. But do not eat much, and avoid fat. Eat vitamin-rich foods.
- Take a break every two hours. But do not remain seated in the automobile. Walk about and eat something: fruit, biscuits, chocolate. But not too much!
- Take your meals at the customary hours. Eat light and take your time. After eating, do not start driving right away. "Stretch your legs" first.
- Drink smaller amounts (of milk, fruit juices, mineral water—coffee and tea only moderately) more frequently, instead of a large quantity at one sitting.



Playing Indoor Games

IN THE evenings, and especially during winter months, outdoor activities may be limited. What can you do for entertainment within your own home?

Watching TV is a favorite pastime. Yet it tends to kill conversation, severely limiting any real interchange between persons. How, then, can families enjoy themselves together?

Some outdoor sports can be played in a scaled-down, modified form within the home. Tennis is an example; in many homes table tennis is popular. Some families have set up a table in their basement or in a spare room, providing a fine source of entertainment for the whole family and for visitors.

Bowling is another sport that can be scaled down and modified for home play. Smaller pins, perhaps of plastic, can be used, and the bowling balls may be of

similar material. Even tennis balls can be used if the pins are light enough.

Pool has long been a popular indoor game. Local pool halls, however, have generally been a poor environment. So some families have put a pool table in their home, and have spent happy hours playing together and with their friends. Other persons enjoy playing many different types of card games.

Providing home entertainment is big business, as shown by the more than 30-percent increase in sales of United States' toy and game manufacturers in a recent year. Particularly popular are video games. Millions of people have purchased remote control sets that can be fastened to their TV's. These make possible the playing of electronic tennis matches, baseball games, chess, and so forth.

Board Games

Games played on a board account for a large part of the sales of game manufacturers. Monopoly, a game of buying and selling real estate and railroads, has long been the most popular. More than 80 million sets have been sold world wide since 1934, when the game first went on sale in Philadelphia, Pennsylvania. In the United States alone, some \$40 billion in Monopoly money was printed in 1975, nearly twice the amount of real money printed by the U.S. Mint that year. Monopoly is played in some 46 countries, the dollars in various countries becoming francs, marks, pesetas, yen, and so forth.

Backgammon, probably the oldest of the board games, is resurging in popularity. In the ruins of the ancient Chaldean city of Ur, archaeologists unearthed a still-playable backgammon set. The ancient Egyptians and Romans also played it. Contributing to backgammon's popularity is the fact that it is easy to learn, yet is very difficult to master. And, of course, chess is another board game that has long provided many persons much pleasure.

Very entertaining, too, are word games, which are excellent for increasing one's vocabulary. A favorite is Scrabble, which grew out of the idea of crossword puzzles. Originated in the 1930's, it did not really catch on until about 1953. Now millions of these board games are sold each year.

Inventing Your Own Games

The entertainment you enjoy, however, does not have to be games that others have invented. You can make up your own. Although not exactly a game, one middle-aged gentleman tells of some family-originated entertainment that brought him particular pleasure. "My four little nephews and nieces, about ages 10 to 15, advised us earlier that the following evening they were going to perform for us. They

worked out a real program of song and dance routines, with the 10-year-old serving as master-of-ceremonies. They kept us thoroughly entertained for an hour or more."

A married couple living in northern Germany decided to make a game of teaching their children about peoples of other countries. They would pretend to take trips to various places. As a highlight, they would have a meal typical of the pre-selected land. Then they would spend the evening discussing the country, looking at pictures of it, and telling their children something about its characteristics and customs.

One evening this family was scheduled to "fly by jet" to Japan. The children were shown how to sit on the floor, Japanese-style, and how to eat with chopsticks. Of course, anyone who has ever eaten with chopsticks, or at least *tried* to eat with chopsticks, knows that the first attempt is not easy. At one point little four-year-old Andrea pleaded: "Daddy, let's fly back to Germany!" Though most families will overlook such possibilities for entertainment, don't you see how interesting they could be?

In many countries it is popular to pantomime Bible stories, letting the guests guess who or what is meant. Noah at work building the ark, David defeating Goliath, Ruth working in Boaz' field, and many other popular stories can be easily and briefly pantomimed. Whoever gives the correct answer can present the next dramatization, with no one doing it twice until all have had a turn.

Another possibility is to use recorded sounds from the kitchen, from one's place of employment or from other places, and then play them for the group to identify. Or it may be that the game is to identify the source of the sound that a person is making from behind a curtain. Is it the

tearing of paper, the opening of a bottle, the cracking of a nut, and so forth?

Group singing can also be real entertainment. And rather than being content with just knowing and singing the melody, why not branch out and learn the other parts—alto, tenor, bass—of a song? Learning to sing four-part harmony can be extremely entertaining and beneficial.

Self-made "Card Games"

Many have had fun playing the following games: First, cut from cardboard or heavy paper 20 or more playing cards. Then paste pictures on them in matching pairs, so that you have about 10, or, if the players are more experienced, preferably more matching pairs. After mixing the cards, lay them face down. Each player, in turn, is then allowed to pick up two. Should he pick up two with the same picture, he may keep them. Otherwise, the cards must be returned to their original position. When the player fails to pick up cards with matching pictures, it is the next player's turn. The goal is to see who will be able to pick up the highest number of matched cards. So the challenge is to try to remember which picture you saw where.

Here is another possibility: List on cards the occupation of a certain Bible

character, some of his outstanding qualities or characteristics, plus events in which he was involved. Some of the clues can be easy, others more difficult. Each player, in turn, reads one clue after another from his card until someone in the group guesses who the individual is.

Another game might be called "Let's Find a Scripture." Cards are passed out that each list a situation, such as the following: A workmate complains about the high cost of living; a mother has trouble controlling her unruly son; a school friend is considering trying out drugs. Each person reads the situation noted on his card and everyone tries to find an appropriate Bible text to handle it. A time limit can be imposed to keep the game from getting draggy, after which the various suggestions can be discussed.

A popular game played at many social gatherings can best be described by the title "Who Am I?" Names of Bible personalities are written on large cards, or pieces of paper, and pinned on the backs of persons who want to play. The person does not know whose name is pinned on his back. He must try to find out the name of the person pinned on his back by asking questions such as, "Did I live before the birth of Jesus?"; "Was I a king?"; "A faithful king?" and so forth. Only "yes," or "no" and "I don't know" answers are permitted.

A word of caution is in order. A host should make sure that his guests feel relaxed. Not all may wish to participate in games. They may prefer to observe; this may bring them greater enjoyment. So don't insist on full participation. Also, select games that suit the persons present. The games shouldn't be overly complex or difficult. And try to avoid letting a spirit of competition develop so that some feel embarrassed or depressed because they can't do as well as others.—Gal. 5:26.

In Future Issues

- **What a Pacemaker Did for Me**
 - **Does the U.N. Have the Solution?**
 - **How Often Are You a Spectator?**
-

Word and Letter Games

You can play a simple word game by someone's mentioning the name of a Bible character. The next person must respond with a Bible character whose name begins with the last letter of the previously mentioned name. For instance, if the first person says *Adam*, then the next could say *Moses*, the next, *Saul*, and on down the line. You may make it more challenging by requiring that the same name not be used twice. In a similar game, the players go through the alphabet, each person saying the name of a Bible character whose name starts with the succeeding letters of the alphabet, a-b-c, and so on.

If you are ready to pass out paper and pencils, you could play a game popular in Sweden called a word square. Each player draws four horizontal and four vertical lines inside a square space, thereby dividing the space into 25 boxes. Then each player, in turn, calls out a single

letter of the alphabet, which every player enters into any one of the 25 boxes of his square. These cannot be moved to other boxes later. The object is to form as many words, both horizontally and vertically, as possible. Such word-forming games can do wonders for your spelling ability.

A game or two may be sufficient to liven up an evening and provide material for further conversations. Do not wear out your guests by playing too long or playing just one game too much! This can be just as boring and tiring as letting the evening drag by doing nothing.

There are indeed many forms of entertainment from which to choose. The right kind can refresh the mind and heart, bringing pleasure and removing boredom. So don't ignore the need for entertainment. Yet, at the same time, don't become a lover of pleasures rather than a lover of God. (2 Tim. 3:4) Keep entertainment in its proper place.

East Meets West in Surinam

WHAT is it like for persons from many parts of the world to live together in one location? Residents of most countries with mixed populations will likely agree that no serious problems need arise. An outstanding example of such a population "melting pot" is Surinam. A visit here will reveal widely diversified peoples from many nations living together peacefully. Would you enjoy a look at our colorful land and people?

Surinam lies on the northeast coast of South America, nestled between Guyana to the west and French Guiana to the east.



By "Awake!" correspondent in Surinam

This country occupies an area of some 63,000 square miles (163,000 square kilometers). A United Nations' estimate for the year 1975 indicated a population for Surinam of some 420,000. Most live on the narrow coastal strip. The greater portion of Surinam is covered by dense jungles and is almost uninhabited.

Concerning the early history of this locality, *The New Encyclopædia Britannica* (1976 edition) states: "Until the 15th century the only inhabitants of Surinam were Carib, Arawak, and Warrow Indians. Another tribe, the Surinen, who inhabited the country at an earlier time but who were driven away by the Caribs, is considered to be the source of the name Surinam."

The Spanish had discovered Surinam by the year 1500; but they were not inclined to settle here or to take advantage of the discovery. It was in 1651 that an Englishman, Francis Lord Willoughby, founded the colony of Surinam. He decided to make good use of the fertile soil by growing sugarcane. Soon a number of sugar plantations were in operation. These contributed to a mixed population.

Varied Population Develops

The operation of the plantations called for inexpensive labor, which led to the importing of African slaves. Frequently slave owners treated their subjects

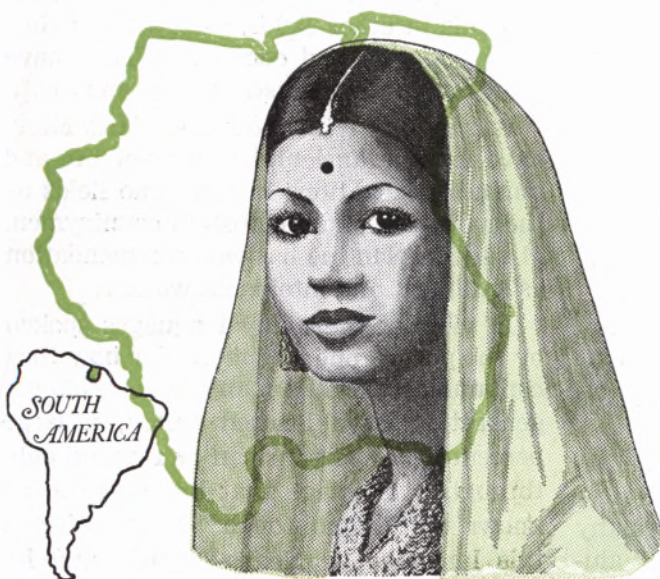
cruelly. As a result, thousands of slaves escaped by fleeing into the dense jungle, where they organized themselves into various tribes and resumed an African way of life. Thus a piece of Africa was transplanted into Surinam.

Descendants of African slaves are known as "Creoles." Those living in the interior are "bush-land" Creoles. The ones who chose to become city dwellers are called "city" Creoles. Thousands of members of Surinam's multiracial society recognize themselves as related to this African population transplant.

The Dutch arrived in 1667. But this did not change the plantation society that flourished here. In 1863, however, came the abolition of slavery. This created a great labor shortage. The need for helping hands to keep the plantations in operation became acute. But from where would the help come?

An early measure to combat the labor shortage was the encouraging of settlement in Surinam by Dutch small farmers. In this way the local population gained a piece of the Netherlands. The labor problem remained acute, however, and it became necessary to seek workers from other areas.

By the mid-1800's Surinam had welcomed within its borders also hundreds of Chinese contract workers. Though many returned home on expiration of their contract, quite a large number remained to establish themselves successfully in the commercial field. For years the



capital city, Paramaribo, has been characterized by a Chinese-operated grocery store on nearly every corner. In this way the population took on an Oriental aspect.

There was yet more need for willing workers. So from 1873 to 1916 Surinam's agricultural labor force was augmented by many shiploads of Hindustani immigrants from India. As with the Chinese, many Hindustanis wished to remain even after their work contracts expired. To make this possible the government provided them with small pieces of land so that they could establish themselves as small farmers.

Still Others Funneled In

'Well, have we met everyone now?' you might ask. By no means. Permit me, please, to introduce you to another of the population's building blocks, this one too is from the East. It is Mr. Indonesian, who, since 1890, has found his way to this country where East meets West. Especially from the island of Java thousands accepted the invitation to come westward where they could put their agricultural ability to good use.

And that is not the end of Surinam's population mixture. Persons visiting Paramaribo will see Lebanese, various Europeans and a large group of mulattoes. These latter are the result of intermarriage by the Eastern and Western population segments mentioned above.

What is it that attracts such diverse people to Surinam? Many still find inviting the wide variety of agricultural products that grow here, such as rice, sugarcane, citrus fruits and bananas. Others are drawn by Surinam's many varieties of wood. Another important factor in the past was the discovery of gold.

More recently, however, the attraction stems from this land's chief mineral treasure, bauxite. This is a claylike, earthy material that is the chief source of alu-

minum and its compounds. The aluminum industry has gobbled up hundreds of thousands of tons of bauxite from Surinam; and vast deposits remain for future use.

Benefiting from the Mixture

Many are the benefits of Surinam's East-West population mixture. The bushland Creole has proved to be very helpful in regard to travel on rivers or into the interior. In dugout canoes these skillful boatmen can navigate dangerous rapids and even small waterfalls. The bushland Creole also distinguishes himself by artful wood carving.

A fine example of adaptability is the Chinese population. While retaining their own language, in several respects the Chinese have adopted Western standards. This is evident socially, educationally and religiously. As for occupations chosen by the Chinese here, besides storekeepers, some have become doctors, teachers and contractors. They are an asset to Surinam.

Among the Hindustanis, the younger generation has proved to be quite progressive. Their forebears were an almost exclusively agricultural society. Today, however, we are not surprised to meet Hindustanis in other fields, such as medicine, education, law and commerce. They have drawn praise for industriousness and thrift.

It is similar with the Indonesians. Many have left the agricultural way of life and pursued occupations in the same fields as their Chinese and Hindustani countrymen. Mr. Indonesian too has won commendation as a diligent and intelligent worker.

In view of the many languages spoken by the people, one might wonder how they communicate. While many of the younger generation have learned Dutch, a large percentage of persons can be reached only through a language that has come to be known as "Sranan-tongo." Many refer to this language as Negro-English, and lo-

cally it is still known as "taki-taki." With English as a basis, Sranan-tongo draws elements from Dutch, French, Portuguese and various languages of Africa and India. Though it may sound amusing at first to persons who speak these other languages, Sranan-tongo has proved to be an adequate means of communication between East and West in this territory.

Evidences of Religious Beliefs

Religious customs and practices here in Surinam are as diverse as the population. An interesting example is what happens at the death of bushland Creoles, also known as "maroons."

The only death that these people consider natural is that from old age. Regarding untimely deaths, however, Dutch author Willem van de Poll mentions "the carrying around of the corpse, for days after death. If possible, the evil spirit, guilty of this death, has to be found, before the dead person can be committed to the earth. The dead one is considered capable of indicating to the bearers of his corpse, where the [evil spirit], guilty of the calamity, dwells."

This is in sharp contrast with the religion of the Bible. The Scriptures state that the dead are wholly unconscious. (Eccl. 9:5; Ps. 146:4) As for untimely death, this is often the result, not of evil spirits, but of "time and unforeseen occurrence." —Eccl. 9:11.

The Hindustanis too preserve customs from non-Biblical religion. In their yards

one may see little red flags flying at the end of bamboo poles. The flags are supposed to serve as a charm against evil. Another unusual Hindustani custom concerns weddings. On the outside of a house one occasionally sees white hand prints. They are evidence that the bride has dipped her hand in a paste made of ground white rice and has pressed it against the outside of the house. This supposedly shows that her hand has been given in marriage.

Rewarding have been the activities of Jehovah's Witnesses in Surinam. In 1946 there were only 20 Witnesses in this locality. By the end of 1971 the number had increased to more than 600 and by 1978 a peak of 879 was reached. The majority of these are city Creoles and mulattoes who consider themselves Occidentals. However, they regularly welcome into their ranks Orientals (largely from the Indonesian sector), native Indians and bushland Creoles.

This consideration of Surinam and its people would not be complete without mentioning the birth of the new independent Republic of Surinam on November 25, 1975. The people looked forward to this transition with enthusiasm; and it took place in a peaceful and orderly way. Among the liberties guaranteed by the constitution of the new Republic are freedom of worship, speech and press.

Interesting indeed is the history and development of Surinam and its population. It is a noteworthy example of what can happen when East meets West.

Fish with "Flashlights"

◆ In Israel's Gulf of Elath there is a three-inch fish technically termed *Photoblepharon palpebratus*. Better known as the flashlight fish, it lights its way under water. The source of those beams? Luminous bacteria live in organs underneath its eyes. Flashlight fish use these beams to locate little crustaceans, on which they dine. But when confronted by a would-be assailant, the fish first moves along with its lights on, then closes opaque lids over them. With lights off, it attempts to escape by rapidly swimming away in a different direction.

AN ELDERLY woman living in Singapore visits her doctor to complain about a persistent cough. In Papua New Guinea, a nervous father takes his daughter to the white man's clinic to show the physician her swollen and grossly distorted face. An Iranian farmer comes to the hospital in town to ask what he can do about the nonhealing sore on his head. All the afflicted ones find that they are suffering from what seemed, until recently, to be a "Western" disease—cancer.

The very mention of cancer has long been enough to stir emotions in the West. Recently, though, more and more cancer cases are coming to light in the developing countries of the East. A recent forecast placed the 1977 cancer-death toll at about two million people in Southeast Asia and the Pacific. In the Philippines, cancer has moved from the seventh to the fifth place among the killer diseases. Most other Eastern countries are experiencing the same upward trend. Hence, this disease is now a scourge to be reckoned with even in developing lands.

Research

In cooperation with their Western colleagues, doctors in the East are doing much research in an effort to identify causes of and cures for cancer. One field of this investigation is called "epidemiology." This is the study of the extent to which various kinds of cancer affect different groups of people. From an examination of patients' habits, surroundings, and so forth, the researcher tries to determine why a certain cancer occurs so frequently among a particular population. In many cases, the findings of their counterparts in the West have been confirmed. But there have been times when such research in the East has shed new light on the cancer scourge.

High Risk Groups

Epidemiological investigation identifies what are called "high risk groups." These are people whose chances of contracting a certain form of cancer are noticeably higher than average. Among the Cantonese-speaking women of Singapore, for example, there seems to be a higher-than-average incidence of lung cancer. The Kadazan people of Sabah have more cases of cancer of the pharynx than those living around them. Breast cancer seems to pose a

shedding light on the cancer scourge

by "Awake!"
correspondent
in the
Philippines



bigger threat to Caucasian women than to those of other races. Among the whites in the United States, there are 73.5 cases per 100,000 population, while in Japan there are just 13.9 cases per 100,000. Additionally, research by Professor A. Habibi of Teheran University has given strength to the suspicion that this form of cancer attacks persons of a higher social level more frequently than it does the poorer people.

What is the significance of these findings? It is hoped that researchers will help to pinpoint the reason for a high cancer rate among certain groups.

In Iran, the most common type of cancer is that of the skin. Why? Probably, say the doctors, because of exposure to sunlight and due to poor personal hygiene on the part of those afflicted. The part played by the sun in causing skin cancer is quite widely known, and many doctors strongly suspect that a daily bath serves as a protection against malignancies on the skin and in other parts of the body.

India reports an unusually high amount of throat, head, neck and cheek cancer. Why? Researchers

attribute this to the common practice of chewing betel nut and using tobacco.

The Role of Chemicals and Diet

Scientists have long felt that there is a connection between certain chemicals and cancer. For example, the use of DDT as a pesticide in the production of vegetables and fruits has been banned in the Philippines for this reason.

Doctor Bhaskara Reddy of the Guntur Medical College in southern India cited factors that appear to confirm this theory. He reported that there had been a definite increase in all types of *lymphomas* (growths of the lymph nodes) in and around Guntur in the last seven years. Coincidentally, a number of pesticide and fertilizer factories had been built in the area during the same period. A close study is under way to determine just how much one factor is related to the other.

Aflatoxin is another *carcinogenic* (cancer-causing) chemical. This is produced by a mold that can appear on foods. Philippine researchers have found it on peanuts, corn and cassava, among other things. Reports from Indonesia have been confirming the role of this chemical in causing cancer of the liver.

Meantime, doctors have been examining the relationship between cancer and a person's diet. In Sri Lanka, cancer of the esophagus reportedly is quite common, with almost twice as many women as men suffering

from it. Investigation revealed two main causes. Chewing betel nut and smoking certainly contributed. But the outstanding factor seemed to be an iron deficiency in the diet of the women.

Researchers in Hawaii had some interesting material to work on in this field. They studied the five major ethnic groups there: Chinese, Japanese, Caucasian, Filipino and Hawaiian. Seemingly, there is a considerable difference in the occurrence of cancer between these groups. Stomach cancer is five times as high among the Japanese as it is among the Filipinos, while breast cancer is three times as high among the Caucasian women as it is among the Filipinos.

The studies tried to correlate these statistics with the diets of the different groups. Preliminary findings showed that the total fat intake of each group paralleled quite closely the occurrences of prostatic cancer in men and breast cancer in women.

On the positive side, researchers in Japan have noticed the good effect of vitamin A in the prevention of lung cancer. It was noticed that those who ate plenty of green and yellow vegetables were less susceptible to lung cancer. Similar findings were reported among the Singapore Chinese.

Cancer and Other Diseases

Eastern research has indicated that sometimes another disease can trigger cancer. For example, in Egypt the most commonly occurring malignancy among men occurs in the bladder. Why should that be so? Researchers link it with the snail fever that is so widespread in the land. Work is under way to find out why such a connection should exist.

Japanese scientists now feel that cancer of the liver can be caused by hepatitis B, a liver disease caused by a virus. It has been found that an infected mother can transmit it to her newborn child. Also, it

is often transmitted by blood transfusions. Thus, cancer should evidently be added to the list of possible complications arising from the practice of giving blood transfusions.

In the Philippines—as in other countries—the most common forms of cancer among women are in the breast and the cervix. Nobody really knows what causes breast cancer, although some link it with hormone activity. If a woman has her pituitary gland removed, this can check it, while removing the ovaries may deter its spread. On the other hand, men rarely suffer from this form of malignancy. If, however, they submit to a large dosage of female hormones—as in a “transsexual” operation—they run a much higher risk.

Statistics show that childbearing has its effect too. Women who marry and bear their first child while still young seem to reduce their risk, while women who do not have children are more likely to contract the disease. Nursing a baby may be a protection—although some dispute this. In the fishing communities of Hong Kong, some women nurse their babies only with the right breast. Studying the incidence of breast cancer in this group, investigators found that among those who contracted it later in life, a significant majority had cancer in the left—the unsuckled—breast.

Cancer of the cervix, on the other hand, is perhaps caused by irritation from an outside source—maybe even by sperm cells. According to statistics, girls who start their sex life early, between the ages of 12 and 16, run a higher risk of getting this kind of cancer. So do prostitutes and women with a promiscuous life-style. This type of cancer appears much more rarely among women of strict religious groups like the Parsees of India or the Muslims. Among women who remain single and live a morally clean life, it almost never appears.

Lung Cancer

Discoveries in the developing world have confirmed the findings in the West about the link between smoking and cancer. At a recent press conference in Manila, Australian doctor Nigel Gray of the International Union Against Cancer said that smoking can cause cancer of the mouth, throat, lips, bladder and lungs. It is also linked with several noncancerous diseases.

Doctor Takeshi Hariyama of Japan stated at the same conference that, while there is a strong suspicion of a link between cancer and many other things, the most positive proof by far of cause and effect is the link between smoking and lung cancer. As the third world becomes more Westernized, the scourge is spreading in the same way that it did in the West. Today, lung cancer is the biggest killer cancer among men in the Philippines, Japan and many other lands, largely due to the smoking habit.

Benefiting from the Light Shed

While cancer is still a most serious affliction, it is no longer the automatic death sentence it once was. In literature on the subject, one often sees phrases like "very high rate of recovery, particularly if discovered early." Research is going on in the East and the West to try to improve cures. In Japan, a vaccine is being developed against cancer-causing hepatitis B, while in the Philippines, money has been set aside to promote research into local plants with anti-tumor properties. Different combinations of chemotherapy (treat-

ment with chemicals) and immunotherapy (utilizing the body's immunological system), along with radiation and surgery, are being tried to improve the treatment and the cure of the disease.

Meanwhile, the light shed on the part played by the individual and the environment is helpful. It is encouraging that some of the fastest-spreading kinds of cancer can be largely avoided merely by not smoking or by not chewing betel nut. Cancer of the cervix is said to be 100 percent curable, if detected early by simple clinical tests available in most countries. Even breast cancer can be detected early by an easily learned technique of self-examination.

Additionally, there is value in knowing that strong sunlight can induce skin tumors. Also, since eating a balanced diet, with plenty of iron and green and yellow vegetables, avoiding moldy food and taking a daily bath—as well as leading a clean and moral life—may prevent the spread of the scourge, a person certainly is not a loser when he does such things. This is true regardless of what future cancer research may bring to light.

Of course, many causes of cancer are as yet unknown, and there are no miracle drugs or diets, no "sure cures," for it. However, we can, and should, take all reasonable precautions to avoid the sickness, and we should be on the alert for any early warning signals. Best of all, we can be encouraged by God's promise that all illness is only with us temporarily. Under God's rule by Christ Jesus this scourge of mankind will be gone forever.—Rev. 21:4, 5.

Fewest Women Employed

◆ Which European country has the lowest percentage of female employees in its work force? That distinction belongs to Italy, according to statistics from that country. Women make up 28 percent of the work force there, compared to 34 percent in Belgium, 37 percent in France, 38 percent in Germany, 39 percent in England and 42 percent in Denmark.

ICELAND TURNS TO GEOTHERMAL ENERGY

By "Awake!" correspondent in Iceland

WHAT can a country, such as the North Atlantic nation of Iceland, do when it has no fossil-fuel resources such as oil, coal or natural gas as an energy source?

A local advertisement reads: "Buy Icelandic, Use Icelandic Products." This slogan has been taken seriously in the field of energy here in Iceland. While the immense power of several of the rivers has been tapped, this has not proved sufficient to reduce oil imports satisfactorily. Searching for another economical source, eyes turned to Iceland's age-old foe, the volcano.

Could the tremendous energy of the volcano be harnessed—possibly not a volcanic eruption itself, but the chief by-product of volcanic activity, geothermal energy? Active volcanoes spew out molten lava, but these vast underground heat factories also make themselves evident through hot mud pits, geysers, hot springs and by the release of steam into the air. Iceland has subterranean reservoirs of superheated water, which, when tapped, is instantly converted into steam as it reaches the cold surface air. Steam, in turn, is an excellent form of clean and efficient energy.

Iceland is an island of the underwater mountain range called the Mid-Atlantic Ridge. Along the peak of this active zone of rifting and volcanism, which cuts through the center of Iceland, are 17 known high-temperature fields. In these

regions are vast stores of superheated water, trapped in the rocks of the earth. How hot is such water? The highest temperature measured is approximately 340 degrees Celsius (644 degrees Fahrenheit). As the superheated water comes in contact with the air at the surface, it produces a deafening blast of steam. This steam can be harnessed to power a turbine, producing electricity.

The Icelandic National Energy Authority estimates that if the heat from these high-temperature geothermal fields were fully utilized, 10,000 megawatts (1 megawatt=1,000,000 watts) of electricity could be continually produced. Taking into consideration that Iceland uses only some 500 megawatts, we begin to realize the vastness of the unexploited energy available in this small country.

Aside from the high-temperature fields there are also very useful low-temperature areas supplying warm water. This is not bathtub-warm water. But at 80 degrees Celsius to 140 degrees Celsius (176 degrees Fahrenheit to 284 degrees Fahrenheit), this low temperature is considered too cold for producing electricity, though it is quite suitable for domestic and industrial purposes. As an example, Reykjavik, the capital, and several surrounding municipalities, have organized district heating systems to use the low-temperature geothermal fields on which they are built.

The History of Geothermal Energy Utilization in Iceland

At the turn of the 20th century few individuals gave any thought to using the country's natural hot springs for anything more than an occasional bath in the outdoors. In Reykjavik, people would walk almost an hour to wash their clothing in a hot spring at Thvottalaugar. In 1928, a borehole was drilled at Thvottalaugar, producing water at a temperature of 87 degrees Celsius (189 degrees Fahrenheit). This was piped into a few public buildings and some homes three kilometers (nearly 2 miles) away. This experiment in community central heating proving successful, a search for more hot water got under way. In 1933, a large quantity was located at Reykir, some 15 kilometers (9 miles) from town, and in 1939 a pipeline was built between Reykir and Reykjavik. By 1943 the distribution network had reached most of the populated regions of Reykjavik. In the same year, the city saw the establishment of its *Hitaveita*, or District Heating Service. It began its service with a capacity of 200 liters (53 U.S. gallons) per second. Today there are some 2,000 liters (528 U.S. gallons) per second available, the equivalent of 420 megawatts of thermal energy. Of this immense supply, 25 percent is obtained from deep wells inside the city of Reykjavik itself.

Still further expansion is planned, by the utilization of more distant fields as well as by deeper wells. Even in Reykjavik (population, 84,000), the *Hitaveita* is planning 10 additional holes from 2,000 to 3,000 meters (6,560 to 9,840 feet) in depth.

The Advantages of Geothermal Heating

Geothermal heating creates many friends among the ecology-minded people of the world. In most modern cities, pollution is taking its toll on the environment, causing much irritation to all living organisms. Reykjavik was once a smoke-

filled city too, but times have changed. Because of using clean and efficient geothermal energy, this city is free from the deadly pollution created by the burning of fossil fuels. Today it is called the smokeless capital of the world.

The cost of utilizing geothermal energy is far less than that of burning imported fuel oil to produce heat or electricity. As an example, a home that would consume approximately 40,000 kilowatts of energy yearly would cost 324,300 Icelandic Krónur (\$1,273, U.S.) for oil, whereas, with geothermal methods, the total yearly cost could be as low as 88,310 Icelandic Krónur (\$347, U.S.).

Simplicity is also a key factor in the use of hot spring water to heat homes. The hot-water pipes are well insulated so that precious heat is not lost. Each household has a hot-water meter, which is read by the same person reading the electric meter. The same water is also clean enough to serve other domestic purposes, being used directly from the tap for bathing, washing and some cooking.

How would you like to be able to go swimming any time of the year in a heated outdoor swimming pool? The city of Reykjavik operates two such outdoor pools so that the public can swim in 26-degree-Celsius (79-degree-Fahrenheit) comfort, no matter how cold the air temperature might be. Today the Laugardalur swimming pool has replaced the old washing spot at Thvottalaugar. Another unique feature at Laugardal is four sitting pools, each kept at its individual constant temperature. As many as 15 persons can sit in each of these pools, relaxing in water of 32 degrees Celsius to 45 degrees Celsius (90 degrees Fahrenheit to 113 degrees Fahrenheit). Sufferers from rheumatism and other inflammatory ailments find relief by daily visits to these "hot pots." It is no wonder that these health-invigorating centers are so popular with the city's in-

habitants and visitors alike. People in the city of Reykjavík pay only 120 Icelandic Krónur (\$0.47 U.S.) per visit, with discounts for children and the elderly, and with no charge for the lame.

Can Rural Areas Benefit from Geothermal Energy?

What about the remaining 100,000 inhabitants scattered about in the many small towns, villages and farms? Can their energy needs also be satisfied by harnessing some form of geothermal energy? The National Energy Authority estimates that as a result of the present price of alternative energy resources, 70 percent of the population will be using geothermal heating methods in the near future. For the remaining 30 percent of Iceland's inhabitants, electrical heating produced through the less-expensive geothermal process will still be more economical than it would be if produced from fossil fuels.

The new *Hitaveita Sudurnesja* (Sudurnes District Heating Service) has been in operation since late 1976. This system will eventually provide geothermal heating for the homes of 11,000 persons. Akureyri, the largest town in the north (12,000 population), and several of the villages have already developed community heating systems. Prospects of piping hot water to some of the villages along the west fjords also seem promising.

Geothermal Power Plants

Utilizing steam from high-temperature geothermal fields to produce electricity is a difficult task, demanding the use of the most modern engineering technology. One such power plant is near beautiful Lake Mývatn. It has proved its reliability by operating with an output of three megawatts since its opening in 1969. Presently, construction of a second steam-electric facility is progressing at the foot of Mount Krafla. It is planned that steam be ob-

tained from many holes at depths of 1,500 to 2,000 meters (4,920 to 6,560 feet) in a 35-square-kilometer (13.5-square-mile) geothermal field. Thus far the stream from this field has exceeded 340 degrees Celsius (644 degrees Fahrenheit), giving engineers hope that this new facility will eventually be capable of producing some 70 megawatts of electricity.

Despite occasional eruptions of lava and sudden, powerful uncontrollable blasts of steam, the Krafla power-plant project continues to progress toward completion. Although the future of such plants may seem excellent to some, they must be built near, if not on top of, high-temperature geothermal fields in order to reach peak productivity. Therefore we see that there is considerable risk in producing electricity by this means. Only time will tell if the latest power project at Krafla proves completely successful in utilizing the earth's steam, thus justifying the risk.

The Hot Rock Project of Heimaey

Now Iceland is developing a method of harnessing another source of geothermal heat—the hot lava field. For the people of the Vestmannaeyjar (Westmann Islands) off the southern coast of Iceland, this seems to be the best source of energy. These islands do not appear to have natural springs with hot water in practical quantity, so there is no choice but to look to the volcano and its by-product, hot lava.

Early in 1973, the 5,500 inhabitants of Heimaey were forced to evacuate the island after a fissure eruption began just outside the town. Within weeks, a third of the town was engulfed in lava from the newly created volcano. Several months later, it ceased spewing molten lava, and people started moving back onto the island to clean up the rubble and resume ordinary life. What would be better than, if possible, to utilize the heat from their newly formed enemy?

The energy from Heimaey's new lava field can be tapped and used to heat the town's buildings. Pipes sunk into Heimaey's fresh lava bring steam and gases to the surface, which, in turn, heat water in the municipal heating system. This being a complete and closed cycle, water at 80 degrees Celsius (176 degrees Fahrenheit) is sent out into the space-heating system of Heimaey, and is returned for reheating when it has cooled down to 40 degrees Celsius (104 degrees Fahrenheit).

It is planned that all the town's houses will shortly be able to benefit from this new heating system. Experts believe that as the upper layer of lava eventually cools, the pipes can be sunk deeper into the lava until sufficient heat is reached. It is thought that the Westmann Islanders will be able to use the *Hraun-hitaveita* (Lava District Heating Service) for many de-

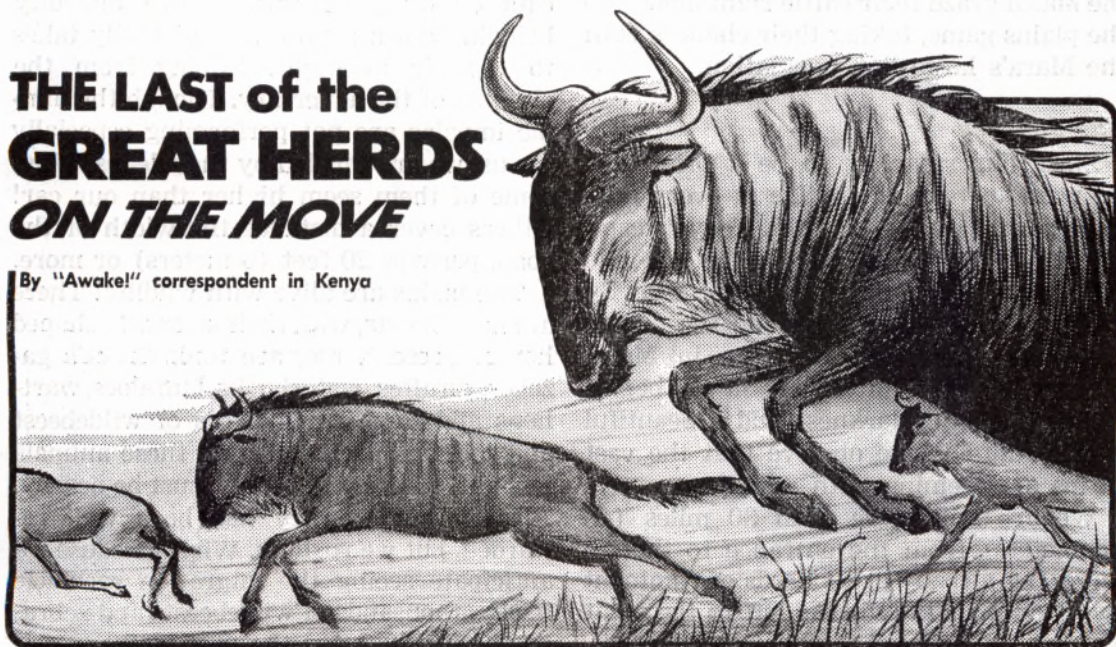
cadec before the field gets too cool for economical use.

Greenhouse Farming

In a land as far north as Iceland, the climate and the short growing season place considerable limitations on farming. As a result, only a few vegetables can be successfully grown out in the open. But due to usage of geothermal energy, the Icelanders are not tied to conventional methods of farming. Natural heat from the earth is used to warm approximately 14 hectares (35 acres) under greenhouse cultivation. By this means tomatoes, cucumbers and many flower varieties are grown in an otherwise limited growth area. Other varieties of vegetables can also be cultivated in certain regions of Iceland where the soil itself is naturally warmed, of course, by geothermal energy.

THE LAST of the GREAT HERDS ON THE MOVE

By "Awake!" correspondent in Kenya



THRILLING! Awe-inspiring! One of the greatest spectacles on earth! Tens of thousands of animals on the move across

vast stretches of African plains! The annual migration of great herds of wildebeests, zebras, gazelles and other animals

certainly is a phenomenon to behold!

A brief safari to Kenya's Masai Mara Game Reserve, on the very edge of the famous Serengeti Plains, afforded us an opportunity to witness what may be a passing scene.

The Reserve

The Masai Mara Game Reserve, located in the southwestern corner of Kenya, is a huge, unspoiled landscape of rolling hills, acacia trees and green grass savannah. Within the reserve's roughly 700 square miles (1,800 square kilometers) are said to be some 95 different species of mammals and over 450 species of birds. We will see, not only a host of smaller animals, but also the big five of African game animals—elephants, lions, rhinos, leopards and cape buffaloes. Around the Mara River is a sizable hippo population, as well as a number of crocodiles. It is noteworthy that the Masai graze their cattle right alongside the plains game, taking their chances with the Mara's large lion population.

The Journey

Since our safari is to be a brief one, we want to take advantage of every daylight hour. Leaving Nairobi, Kenya's capital, at 4 a.m., we set out on the 170-mile (274-kilometer) journey to the reserve. By the time we reach Narok and the end of the paved road, we are deep in Masai country. As the light of day slowly begins rolling back the darkness and a beautiful sunrise unfolds, we observe that the vast plains are teeming with wildlife.

We are still more than 30 miles (48 kilometers) from the entrance to the reserve, but already great herds of ruminant plains animals are visible. Off to the right we see a sizable herd of Thomson's gazelles. These happy, gregarious little creatures easily win many a tourist's heart—and ours too. Light reddish brown in color, with a broad black band separating the

white belly region, a "Tommy," as it is affectionately known, is constantly wagging its tail. No, the tail does not wag from side to side like that of a dog, but round and round, in a complete circle. Someone once said that he thought a "Tommy" wags its tail incessantly because it is so happy. Whether this is true or not, a "Tommy" certainly is an amusing little creature.

Just ahead is probably the most graceful of all the plains animals, the impala. It is a sleek, reddish-brown creature with enormous limpid brown eyes. The male possesses large lyrate horns. This animal is the very picture of elegance, whether standing motionless atop an anthill or bounding off on the run in some prodigious and fluid leaps. The leaps seem to add to its defensive capabilities in the light bush country, which is the impala's natural habitat. We easily understand why the big cats or other predators have difficulty bringing down a prey that virtually takes to the air in flight, leaping from the clutches of the adversary. Though the nimble impalas are not performing especially for us, we are thrilled by their leaps. Why, some of them seem higher than our car! Others cover a distance the width of the road, perhaps 20 feet (6 meters) or more.

The plains are alive with wildlife! There are hartebeests, with their strangely shaped horns. Present, too, are topi, Grant's gazelles, giraffes, waterbucks, buffaloes, warthogs and some small herds of wildebeest and zebras. Surely, with all these animals in sight, the king of beasts must be nearby. Already our journey has been well rewarded, but we rush on. Why? Because we anticipate seeing the migration spectacle itself—thousands of wildebeests and zebras on the move across the vast plains.

The Migration

Our first glimpse of the phenomenon is from the veranda of the lodge. The rolling

hills to the rear of the building should be a luscious green or golden brown, but today they are dark, almost black. They must be covered by a tremendous herd of wildebeests! A quick look through the binoculars confirms that conclusion. Why, there must be thousands of them! Quickly we get settled, make arrangements to pick up a ranger, and we are off on safari.

Wildebeests and zebras are everywhere! It is as if we are driving through a sea of animals. And they—especially the wildebeests—are on the move, slowly, almost in single file, seemingly following a leader. Onward they go. Nothing seems to deter them. Over plains, through valleys, across ditches and streams they keep on moving. At times like these, the animals can be oblivious to what happens around them. The tragedy of having one snared by a predator seems to go unnoticed. Pushing, shoving, trampling—yes, some are crushed along the way as the great herd just keeps going forward. When drinking at a river, as many as three can be on top of one another. The result? Many deaths.

Driving a bit closer, we can hear the distinctive sonorous bleating grunts. What a strange sound! Wildebeests are very noisy animals, and their incessant lowing—with so many voices together—produces a mighty discordant roar across the plains.

The wildebeest, or gnu, most numerous of the larger animals of East Africa, is a strange-looking creature. Unmistakably an antelope, it is closely related to the hartebeest. The gnu's oxlike front portion, with massive shoulders and the horselike black mane and tail, along with a beard under the neck, tends to disassociate it from the other, more graceful, antelopes. There are two kinds of wildebeests and the variety that inhabits the plains of Kenya and Tanzania is the brindled gnu or blue wildebeest. It is dark gray, crossed by darker bands on the foreparts, thus having the "brindled" appearance. Anywhere from

four to four and a half feet (1.2 to 1.4 meters) high at the shoulders, the large males can reach a weight of 600 pounds (270 kilograms). The male is a powerful, robust, courageous creature and, in defense, it can repel the attack of a lion.

Wildebeests are very gregarious and are seen mostly in large herds, although it is not unusual to see a lone male living a solitary life. These animals are rather curious about what is happening around them. When disturbed, they dash off a short distance and then wheel around to see what has frightened them. In flight, they toss their heads from side to side, prancing about and throwing up their heels in a wild, erratic manner. To the human onlooker, this performance is sometimes a bit ludicrous.

Due to the spread of civilization, annual wildebeest migrations probably are not on the same scale as they were in years gone by. Nevertheless, they still provide an unparalleled sight. Reportedly, on one occasion there was a buildup in a herd for three days, until the animals covered an area some four by eight miles (6 by 13 kilometers)! According to one onlooker, grass that was three feet (one meter) high was then eaten down to four inches (10 centimeters) in just two days!

The annual trek of the wildebeest may cover several hundred miles in one direction from the southern Serengeti Plains in Tanzania northward into Kenya's Masai Mara. Generally, from July to September, these animals can be seen on the Mara Plains, walking and running, often in single file. Normal everyday affairs, such as calving, continue throughout the migratory trek.

Why do these animals migrate? Apparently, in search of food, although wildebeests have been known to leave areas of good grass and to enter those of poorer grass quality. The authors of the book *Serengeti Shall Not Die* carried out exten-

sive research on the basic kinds of grass found in the Serengeti Plains. Their findings, along with those of others, seem to indicate that wildebeests prefer a type of grass with protein content equal to average hay. When these grasses are sprouting, the animals wander along, grazing in a somewhat circular route. And, when the cropped grass has again grown several inches, they return and graze it once more. Some researchers feel that, besides this, there is some kind of inherent instinctive urge that keeps these animals on the move. Others say that wildebeests do not feel safe in the high grass due to the danger of preying lions and so keep on the move in search of shorter grass. Whatever is responsible for their migration, it is a spectacle worth seeing.

What Does the Future Hold?

Daily, the demands of civilization and the destructive acts of some selfish men endanger, not only the wildebeest, but all

the animals of the African plains. The near extinction of the American bison makes us wonder what may yet happen to the wildebeest. Ever-expanding human populations requiring more living space and farmland make it increasingly difficult for conscientious governments to preserve the environment needed by the marvelous creatures of the African plains. Despite growing pressures, however, some are making tremendous efforts to protect this living legacy coming from the Creator. Through the protective measures of game parks and reserves, the wildebeests and other African animals may be spared the extinction already suffered by far too many living creatures.

Our two-day safari has come to an end, but what an experience it has been! Tens of thousands of animals on the move is a sight to be remembered. For many years to come, we will recall this thrilling spectacle—the annual migration of the wildebeests, the last of the great herds.

Tiered Resting Places for the Dead

The custom of disposing of the human dead with ceremony is universal. But the manner in which the remains are cared for varies. What is quite common to people in one part of the world is unusual to persons living elsewhere. A case in point are the tiered resting places for the dead found in Hawaii and Latin America.

In Latin America it is customary to slide the casket into a long tunnellike hole in a wall, to stack up bricks in front of the casket and then to seal it off with fresh mortar. To identify the deceased, a plaque is placed over the sealed opening, at the base of which is a tray for holding fresh flowers. The burial walls themselves may be many feet long and wide enough to hold two caskets on the same level. Up to eight caskets may be stacked vertically.

In the Universal Cemetery of Barranquilla, Colombia, there are three classes of vaults—one for the rich, another for the middle class and another for the ordinary working people. With the exception of the rich who own their burial places, most persons pay a rental fee for a few years. Then they purchase a niche in another tiered structure, in which the remains are kept in a small metal container double the size of a shoe box. Again, the remains are identified by a plaque.

It is noteworthy that the Scriptures do not prescribe the procedure for handling the remains of the dead, since this has no bearing at all on their being brought back to life in the resurrection. Of utmost importance is the building up of a fine name or reputation with Jehovah God during a person's lifetime so that He will consider one worthy of being raised from the dead.—Eccl. 7:1; Acts 24:15.



THE kingdom of God was the principal theme of Jesus' preaching. "I must declare the good news of the kingdom of God, because for this I was sent forth," he said. (Luke 4:43) For nearly 2,000 years, Christians have expressed the sentiments of the second petition of Jesus' model prayer: "Let your kingdom come." (Matt. 6:10) What is the "kingdom" that Jesus proclaimed and for which he taught his disciples to pray?

In the Bible "kingdom" sometimes denotes *sovereignty, royal power, dominion, the state of being a king*, that is to say, *kingship*. (Ps. 145:11-13; Dan. 1:1; 2:1; 8:1) The Word of God makes it plain that the Creator has always held kingship in this sense. "Jehovah is King to time indefinite, even forever," declared the psalmist. (Ps. 10:16; compare Daniel 4:3, 34, 35; 1 Timothy 1:17.) The Bible uses the term "kingdom" also for the *means used to express a king's sovereignty*. Consider how the Scriptures develop this matter.

God's faithful servant Daniel received a vision foretelling the rise and the fall of a series of world kingdoms down to the end of the present system of things. (Dan. 2:31-33, 36-43) Those kingdoms would be succeeded by something

What Is "the Kingdom of God"?

unusual. "In the days of those kings," we read, "the God of heaven will set up a kingdom [of his Son, the Messiah] that will never be brought to ruin. And the kingdom itself will not be passed on to any other people. It will crush and put an end to all these kingdoms, and it itself will stand to times indefinite."—Dan. 2:44.

The crushing out of existence of all human rulerships could not be accomplished by any other means. The kingdom that does this is the power and authority of the king that he uses for expressing or enforcing the sovereignty of God. Another prophetic vision provides additional details about the kingdom. Daniel writes: "With the clouds of the heavens someone like a son of man happened to be coming; and to the Ancient of Days [Jehovah God] he gained access, and they brought him up close even before that One. And to him there were given rulership and dignity and kingdom, that the peoples, national groups and languages should all serve even him. His rulership is an indefinitely lasting rulership that will not pass away, and his kingdom one that will not be brought to ruin." (Dan. 7:13, 14) That "son of man" is the glorified Jesus Christ.—Matt. 26:64; Rev. 1:7.

However, the "son of man" in this kingdom will have a body of associate rulers, concerning whom Daniel 7:18, 22, 27 says: "But the *holy ones of the Supreme One* will receive the kingdom, and *they* will take possession of the kingdom . . . The definite time arrived that the holy ones took possession of the kingdom itself. And the kingdom and the rulership and the grandeur of the kingdoms under all the heavens were given to the people who are the holy ones of the Supreme One. Their kingdom is an indefinitely lasting kingdom, and all the rulerships will serve and obey even them."

Thus, in the kingdom wielded by the "son of man" he associates with himself a group of corulers. But who are they?

The ancient Jews understood the "son of man" to be the promised Messiah. Since the Scriptures occasionally refer to the Israelites as God's "holy ones," it was expected that one day the Messiah with fellow Israelites would become world rulers. (Ps. 34:9; 89:5, 7) Thayer's *Greek-English Lexicon of the New Testament* explains: "The Jews were expecting a kingdom of the greatest felicity, which God through the Messiah would set up, raising the dead to life again and renovating earth and heaven; and that in this kingdom they [the Jews] would bear sway for ever over all the nations of the world. This kingdom was called the kingdom of God or the kingdom of the Messiah."

However, there were factors about the kingdom of God that the Jews did not understand. When Jesus came to earth, he spoke to his disciples about "the sacred secret of the kingdom of God." (Mark 4:11) In the inspired Christian Greek Scriptures three features of that "sacred secret" stand out prominently:

(1) The foretold "Son of man" is the heavenly, only-begotten son of God who came to earth as Jesus Christ, died sacrificially as a ransom for sinful mankind and returned to heaven.—John 1:14; 3:13; 1 Tim. 2:5, 6; 3:16.

(2) The "holy ones" that rule with Christ would be taken from earth into heaven.—Luke 22:28-30; John 14:1-3.

(3) Those corulers would be chosen, not only from the natural Jews, but also

from many other nations.—Eph. 3:3-6; Col. 1:26, 27.

Will all "Christians" enter heaven to serve in that kingdom? No, for we have already learned that it will have earthly subjects. (Dan. 7:14, 27) Only a limited number are taken to heaven to rule with the Son of man. In this regard the apostle John provides important details in the book of Revelation:

"And I saw, and, look! the Lamb [Jesus Christ] standing upon the Mount Zion, and with him a hundred and forty-four thousand having his name and the name of his Father written on their foreheads. . . . the hundred and forty-four thousand, who have been bought from the earth. . . . These were bought from among mankind as firstfruits to God and to the Lamb." —Rev. 14:1-4; compare Revelation 5:9, 10; 7:4.

It is clear, then, that those who stand (or rule) in heaven with the Lamb, Jesus Christ, are not all who become Christians and gain eternal salvation. Only a "first-fruits" participate in that heavenly rulership. All other faithful servants of God will enjoy everlasting life in perfection here on earth.—Rev. 21:3, 4.

In view of this Scriptural information, what is the kingdom of God that Jesus proclaimed? It is the heavenly government consisting of Jesus Christ and a "hundred and forty-four thousand" corulers, or "joint heirs with Christ." (Rom. 8:17) The kingdom of the Messiah will "come" by taking action to remove the present system of human rulership on earth. (Ps. 2:7-9) After that there will be a global extension of rule by God. (Dan. 2:34, 44) What a delightful prospect!

Still Speak Aramaic

◆ Language experts in Lebanon and Syria say that there is still one small community 38 miles from Damascus, Syria, that speaks Aramaic. The language survived in this town, it is believed, because it was isolated in the mountains and inaccessible until modern times. It is thought to be the only place in the world where Aramaic is still spoken. Aramaic was spoken when Jesus Christ was on earth.

Watching



World

Targets of "Third World"

◆ "One of the more unfortunate aspects of life in the so-called Third World," says an Omaha, Nebraska, *World-Herald* editorial, "is that when The Regime starts throwing its weight around, one of the first groups to get stepped on frequently is one that deserves it least, the Jehovah's Witnesses. . . . They interpret the Bible as forbidding them to partake of political life. In Malawi they are persecuted for refusing to buy and carry the political identification cards required by the regime. In Argentina they are being persecuted for following tenets of their belief"

"It takes a bigoted and paranoid imagination to believe that the Jehovah's Witnesses pose any kind of threat to any political regime; they are as non-subversive and peace-loving as a religious body can be, and ask only to be left alone to pursue their faith in their own way. . . . they hesitate to ask for help from agencies and institutions which might be able to lift some of the burden from them. Instead they quietly and courageously shoulder the burden, and hope that an enlightened and compassionate public opinion will be of some assistance."

Back to Earth

◆ How long did it take the
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two Soviet astronauts to re-adjust to earth gravity after spending a record 140 days in space? The medical director for the Russian space program asserted that it was only on the first day back to earth that they were seriously affected by gravity. In fact, on the second day back, they took a walk in the park. This was four days earlier than the medical schedule called for. However, medical experts said that it took about 10 days for them to adjust completely to gravity again.

Japan's Bloodless Surgery

◆ Japan's *Asahi Shimbun* newspaper reports that the Tokyo University Hospital now routinely does open-heart surgery without blood transfusions. "As of September this year 135 bloodless operations have been successfully performed," says the paper. "According to Dr. [Daijun] Go, blood transfusions are not as safe as generally thought." But he notes that doctors keep using them because they "have a vague fear if transfusions are not used there will be the possibility of anemia symptoms appearing. . . . 'A majority feel uncertain, so in most cases continue to use blood,' added Dr. Go."

Assistant Professor Akira Mizuno of Tokyo University Hospital also noted that,

though bloodless surgery is common in America, only a few Japanese universities are pioneering it. "It can not be done in one day," Mizuno said, "but for the patients' sake the doctors can put forth more effort to reduce blood transfusions."—October 23, 1978, p. 11.

Disaster Aid Misguided?

◆ The London-based International Disaster Institute is challenging traditional views of disaster aid. According to a report by Leslie Plommer of the *Times* of London, "the Western reflex is to fly in tons of food, blankets, vaccines and prefabricated housing—yet food supplies are not generally destroyed in a disaster, clothing is usually adequate, epidemics are uncommon and vaccines not always effective, and, according to United Nations figures, the small minority made homeless is rehoused or taken in within a day or two." Institute research indicates that disaster survivors "react quickly and usefully to help themselves" instead of waiting resignedly for foreign aid.

Sometimes misguided aid can even be harmful. Thousands of tons of food were sent in after the Guatemalan earthquake, notes Plommer, "causing the local price of corn to crash, heaping new hardship on Guatemalan farmers." Apparently a more rational approach would be to supply what is actually needed in each disaster, rather than automatically to dump tons of possibly unnecessary material into the area.

Embarrassing Questions

◆ Two American researchers recently received the Nobel physics prize for their discovery of universal background radiation, which scientists claim proves that the universe came into existence as a "cosmic fireball." Robert Jastrow, director of the National Aeronautics and Space Administra-

tion's Goddard Institute for Space Studies, writes: "It is the final scientific proof for the act of creation." He says that "astronomers are curiously upset. They did not expect to find evidence for an abrupt beginning of the world." This, Jastrow declares, "poses enormous problems for scientists. . . . They ask, What cause produced this effect? Who or what put the matter and energy into the universe?"

Dogs for Direction

◆ When Japanese explorer Naomi Uemura went to the North Pole alone by dogsled, he was resupplied by airplane drops. (See *Awake!* 7/8/78, p. 29.) But how could the pilot find Uemura on the endless white below? *Smithsonian* magazine recently reported that the aviator "had a radio direction-finding needle to follow most of the way, then when he got relatively close, Uemura's dogs would turn their heads toward the plane, although it was still too far off for the man to hear. Once the dogs turned in one direction and made it obvious that they were getting a 'reading,' Uemura would call [the pilot] on his portable radio and say, 'Turn to your left,' or whatever. Pretty soon Uemura would hear the plane, too."

Death Sentence Before Birth

◆ A Danish heart specialist concerned with the deaths of people in their early 20's from heart disease investigated a possible cause. She found that infants born to smoking mothers already have in their blood vessels signs of the lesions and clogging associated with heart disease, while those born to nonsmoking mothers do not. In her studies at the University of Copenhagen, she also found the damage to be the worst among the babies of women who smoked the most. "Current research indicates that even if a smoker stops smoking during her pregnancy," says the report from the

Chicago Tribune, "her child will still be born with some vessel damage that can develop as the youngster grows."

Terrorist-Hunt By-Product

◆ Police tracking down terrorists in the Federal Republic of Germany "are spreading panic among the country's Casanovas [adulterers]," reports *To the Point International*. Dozens of lovenests in the posh Zoo district of Düsseldorf, for example, have been [raided] in the belief they were terrorist hideouts." It seems that the caution such illicit lovers exercise in maintaining apartments is similar to that exercised by terrorists, causing suspicious building superintendents to contact police.

Seeing Atoms Move

◆ The first "color movies" of atoms are reported to have been filmed by two University of Chicago physicists. Since atoms are too small to be seen with ordinary light, they employ a scanning transmission electron microscope, which uses beams of electrons rather than light to view the image. Because atomic nuclei are smaller than the smallest wavelengths of light, there is no actual color. So with their device the scientists assign the colors to aid in discerning the movement of single atoms among others.

Cults Invade Europe

◆ The Associated Press reports that various "fringe" religious cults have invaded Europe since their earlier growth in America. Several such groups are noted for their street-begging activities. Where does the money go? The news service says that "ten Hare Krishna monks were heavily fined in Frankfurt, West Germany, last April for begging \$1.2 million under false pretenses—claiming the money was destined for starving children in India, while it actually went to the sect's

castle commune." In a warning to German youth, the Federal Republic's Ministry of Youth, Family and Health declares: "The common aim of these sects in West Germany is the pursuit of power and money. . . . The leaders scarcely believe the ideals they proclaim."

Celibate 'Family-Breakers'

◆ What is the Vatican's position toward Catholic priests who wish to return to the priesthood after they have left it to marry? Monsignor Hilary Franco of Rome's Sacred Congregation of the Clergy recently stated that many such priests are "being what we call rehabilitated into active ministry." But what about their wives and families? "If he has a wife, the civil divorce will have to take effect and the children will have to be taken care of. . . . And if he shows signs of penance, so to speak, we will rehabilitate him." These statements, says the *National Catholic Reporter*, "shocked many knowledgeable Catholics here. It also concerned some non-Catholics who were given the impression . . . that the church was a family-breaker."

First Words

◆ Which babies learn language first—girls or boys? A report in the journal *Developmental Psychology* says that girls get in the first word. Contrary to some recent studies indicating that the sexes are equal on this score, Colombia University investigators found that baby girls were more advanced in what they call "mean length of utterance," which they contend is a more accurate measure than previous testing techniques.

Educating Greeks

◆ According to the periodical *Greece*, the ancient Greek verb "to educate" grew to mean "to punish" by Hellenistic times and finally "to harry" in modern Greek. *Greece* observes: "Some cynics in Greece main-

tain that there are still good reasons today for these concepts to be confused. The government however is determined to give education its due by boldly reforming" outdated practices. The Greek Ministry of Education is presently said to be pushing legislation to improve educational methods.

'Kings of the Road'

◆ Brazil's over 20,000 yearly traffic deaths give it one of the highest rates of auto carnage in the world. For every 10,000 Brazilian vehicles, there are 25.9 deaths annually. The U.S. has only about one eighth as many deaths per 10,000 autos, with 3.3; the Federal Republic of Germany, 7.6; and France, 7.5. Why so many in Brazil? A businessman interviewed by the *Brazil Herald* says that the car has become a symbol of power for many: "The Brazilian doesn't view the car as

mere transportation. When he gets in his car, he's king of the road." Similarly, "when (the Brazilian driver) violates the law," complained a transit official, "he considers himself a hero, not a villain." A strong government publicity campaign is attacking the problem by urging respect for life.

Cesarean Birth Record

◆ According to Professor Carlos Antonio Montenegro of Rio de Janeiro Federal University, "Brazil holds the record in Cesarean operations." In private clinics, more than 50 percent of the women prefer an operation to giving natural birth.

Surgery Caution

◆ When doctors in California's Los Angeles County went on strike for five weeks in 1976, the county death rate fell an average of 18 percent, from 19.8 to 16.2 per 100,000 popula-

tion. Two University of California researchers recently presented this information to the American Public Health Association, saying that there is "mounting evidence that people might benefit if less elective surgery [operations not necessary to save life] were performed in the United States." The death rate jumped back to slightly above its pre-strike average when the doctors went back to work.

Aliens, Please Note

◆ During January all aliens in the United States (with few exceptions) are required to report their addresses to the government. Forms for this purpose are available at offices of the Immigration and Naturalization Service as well as all post offices. Upon completing Form 1-53, place a postage stamp on the card's reverse side and mail it to the pre-printed address appearing there.

