

Awake!

JANUARY 8, 1980

ENERGY SHORTAGE

what can we do?

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WILL PEOPLE EVER STOP
HURTING ONE ANOTHER?



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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.

The Bible translation used in "Awake!" is the modern-language "New World Translation of the Holy Scriptures," unless otherwise indicated.

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HAVE YOU EVER
WONDERED

Will People Ever Stop Hurting One Another?

IT'S not uncommon to hear that someone's feelings have been hurt. That kind of hurt often lasts even longer than when the injury is physical. Perhaps it seems that life will always be like this. But there is sound reason to believe that something better is possible. To appreciate how that can be, it's helpful to consider first—



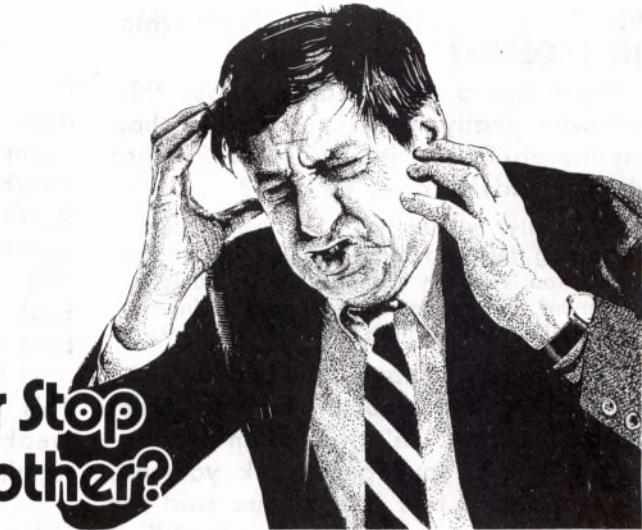
WHY DO PEOPLE HURT ONE ANOTHER?

Usually it's because a person is thinking strictly about himself and his own feelings. He may not really want to hurt anyone, but, for the moment, selfishness crowds out any concern for others.

For instance, a man may work all day under a disagreeable boss. His frustrations boil, but he needs the job so he keeps quiet. But what happens when he gets home? All he can think about is his own hurt. He lashes out at his wife, who also may have had a difficult day. She, in turn, may take her hurt out on the children.

If a person is overly sensitive, he can allow the smallest incident to cause him to hurt another. In a large city one family's clothesline pole fell into a neighbor's backyard causing some damage. This sparked two years of hostility between the families, and finally the couple who owned the pole was mercilessly gunned down by the neighbor. Imagine, all because of a broken window and a few crushed shrubs! Touchiness and self-centeredness crowded out any feelings of compassion.

So pressure from others, frustrations, being touchy—all of these can cause us to strike out against others. Sadly, so often those we hurt are our own loved ones.



WHAT CAN HELP US TO OVERCOME THE PROBLEM?

There are a lot of ideas about this. But who really knows us better than anyone else? Isn't it our Creator? What practical advice does he give?

"Finally, all of you be like-minded, showing fellow feeling, having brotherly affection, tenderly compassionate, humble in mind, not paying back injury for injury or reviling for reviling."—1 Pet. 3:8, 9.

The need to have "fellow feeling" is stressed. Put yourself in the other person's shoes. Isn't this often the answer? Before you speak, ask yourself, 'How would I feel if someone said the same thing to me? Would it hurt?' If so, then why say it?—Luke 6:31.

Having "fellow feeling" will enable us to realize that those who treat us harshly may be under pressure, tired or ill and may not intend to irritate. Such empathy on our part can enable us to avoid returning injury for injury.

Though the Bible's counsel is good, those who have tried it realize that it's not always easy to apply. Why is this?

IS SOMETHING ABOUT THE HUMAN MAKEUP INVOLVED?

If we're honest, we have to admit that we all have a tendency to do bad. As the Bible explains, we are born with an inheritance of sin.—Ps. 51:5.

"That's just it," some will argue. "We are all born sinners. We're weak and naturally do bad. There's nothing we can do about it. It's just the way we are!" Quite to the contrary, we can avoid being overwhelmed by our sinful tendencies. In fact, knowledge of our sinful condition can make it easier to avoid hurting others. How so?

If we realize that we are sinners like everyone else, we hardly can feel superior to others. Recognizing this makes

it easier to follow the Bible counsel: "Clothe yourselves with the tender affections of compassion, kindness, lowliness of mind, mildness, and long-suffering. Continue putting up with one another and forgiving one another freely if anyone has a cause for complaint against another. [Why?] Even as Jehovah freely forgave you, so do you also." (Col. 3:12, 13) Such a person remembers that he has often begged forgiveness from God and been freely forgiven. This enables him to put up with the weaknesses of others, even if he has a legitimate "cause for complaint."

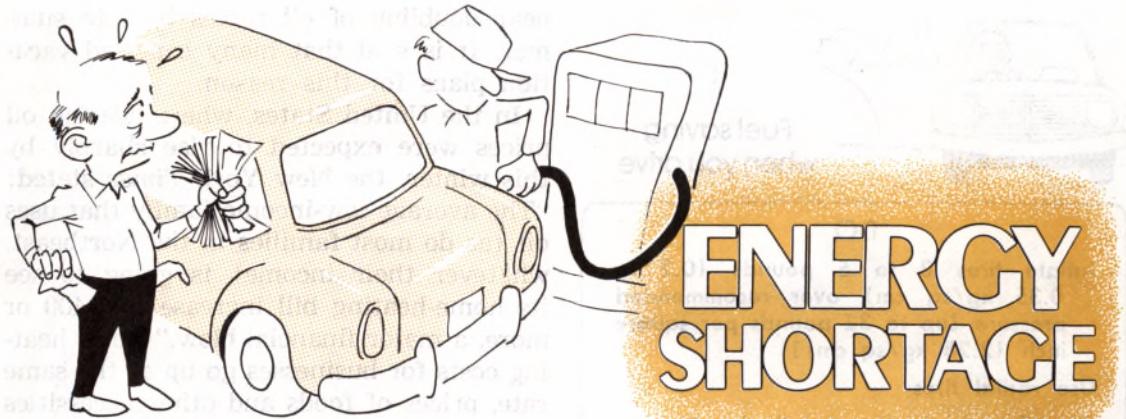
WHAT ABOUT A WHOLE WORLD WITHOUT HURTFULNESS?

Such is possible—indeed, certain—for God promises to destroy all who are unwilling to live at peace with their fellowmen. After describing the "destruction of the ungodly men," the apostle Peter writes: "There are new heavens and a new earth that we are awaiting according to his promise, and in these righteousness is to dwell."—2 Pet. 3:7, 13.

The warm condition that now exists among those who follow Bible principles will prevail earth wide. People who formerly displayed beastlike dispositions will manifest gentleness. The prophet Isaiah describes this figuratively, saying:

"And the wolf will actually reside for a while with the male lamb, and with the kid the leopard itself will lie down, and the calf and the maned young lion and the well-fed animal all together; and a mere little boy will be leader over them. . . . They will not do any harm or cause any ruin."—Isa. 11:6-9.

Just imagine, no one will "harm" or hurt another! God will see to it that sin is wholly eliminated, taking with it all the emotions that incite strife.



what can we do about it?

HOW will the impending *global shortage* of energy affect you? Is it real? Or is it a hoax? Will it strike soon? Or is it only something for our children and grandchildren to worry about?

During the past year, the world found that these questions were thrust upon it. Energy suddenly became the number one concern of many millions of people.

In Greece, motorists were restricted to driving only on alternate weekends. Tanzania introduced gasoline rationing. Waits of several hours in long gas lines became commonplace in Turkey, Ireland and the United States.

"Pulling into a service station is beginning to seem like entering a combat zone," said *Time* magazine in May. "Frazzled and angry drivers are starting to boil over." In California, a frustrated man drove into a station ahead of a quarter-mile (.4-km) line of cars and used a pistol to keep other angry customers at bay while he pumped gas into his tank. Two New York motorists were killed

in gas-line disputes. And a few beleaguered service-station attendants even took to carrying guns to keep the peace.

Dizzying Price Hikes

Added to the scarcity were staggering price jumps in many lands. By mid-1978, motorists in Turkey were paying more than three times as much as they paid for gasoline just a year before. Their price of about \$2.80 per gallon (\$.75 per L) was equaled by France, and in other countries the price actually passed \$4 (\$1 per L) by late 1979. Philippine drivers had to pay about two thirds more for gasoline than they did the previous year, as did Americans, who had long been spoiled by low fuel prices. And by late summer, Britons were paying almost 50 percent more for gas than they did last January. Even Japan's already high prices climbed about 40 percent in a year.

Truck drivers particularly felt the crunch as diesel-fuel





Fuel saving when you drive

DO

Inflate tires 3 to 5 pounds (0.2 to 0.35 kg/sq cm) over recommended pressure [up to 32 pounds per square inch (2.25 kg/sq cm)]

Use radial tires

Use "low friction" or synthetic oil

Keep engine in tune

After starting, get car moving immediately (slowly for first few minutes)

Avoid complete stops at temporary obstructions such as stoplights by slowing down well ahead

Stop engine when necessary to wait 30 seconds or more

DO NOT

Use snow tires any longer than necessary

Carry unnecessary items in trunk (reduce weight)

Start car moving in "jackrabbit" fashion

prices kept pace with gasoline. As one Ohio trucker complained: 'When you get only three or four miles to the gallon (80 or 60 L/100 km) that's rough.' And, of course, such increases in transportation costs affect the price of almost everything you purchase.

The price increases for home heating oil world wide are especially disconcerting because they have their greatest impact on the poor. People must have heat, even though they do without a car. Starting last winter, the average price for heating oil in the nations of the European Economic Community rose over 60 percent by fall and was still growing rapidly. The Swiss and the Germans had experienced a

near doubling of oil prices by late summer. It is said that many canceled vacation plans for this reason.

In the United States, where heating oil prices were expected to rise sharply by this winter, the *New York Times* stated: "The average low-income family that uses oil (as do most families in the Northeast, whatever their income) is going to see its home-heating bill increase by \$400 or more, a major financial blow." Since heating costs for businesses go up at the same rate, prices of foods and other necessities get a boost as well.

All these price rises are pushing developing countries, many already enormously in debt, even farther toward the brink of bankruptcy, with ominous consequences for the world economic system. Badly needed modernization programs must be slowed or stopped.

All of this is making energy limitations more of a reality to the world. Is there anything that we personally can do about it, at least to ease the effect on our own lives and thereby contribute to overall energy conservation?

Ways That You Can Conserve

The fact that there is a great deal of energy being wasted world wide shows that there is room to make adjustments. According to World Bank figures, the average American uses more than twice as much energy as do individuals in the other industrialized countries.

Of course, some persons may feel that there is not really much point in trying to conserve energy. After all, how much difference will the frugality of a few people make? Regardless of what others do, there can be benefits to the one who conserves—not only financial savings, but benefits in terms of health and safety.

Aside from owning more fuel-efficient autos, those who wish to conserve energy can reduce fuel consumption in any car.

Fuel saving at home



DO

- Add insulation to ceilings and walls**
- Install double-pane or storm windows and weather-strip all outdoor openings**
- Shut off heating in unused rooms and close doors**
- Keep drapes and furniture from blocking heat outlets**
- Lower hot-water temperature (Many hot-water heaters use more energy than an airconditioner, refrigerator, freezer and TV set combined)**
- Wash and rinse laundry in cold water**
- Take more showers than tub baths (Showers use about half the hot water)**
- Use low-wattage or fluorescent bulbs where possible**
- Shut off lights not being used**
- Close fireplace or wood-stove damper when not in use**

DO NOT

- Use pilot light on gas stove (pilot lights use up to half of all cooking gas); install electric igniter**
- Keep fire high after food on stove reaches boil (will cook no faster than steady simmer)**
- Rinse dishes with running hot water (Use cold water or dip in pan of hot water)**
- Let hot water run while wet shaving**

A major gas waster is speed. It is claimed that as much as one fifth or more of the gas can be saved by driving 55 miles per hour (89 km/h) instead of 70 mph (113 km/h). And there is another real benefit to those who drive more slowly—safety. Though some do not agree that dropping the U.S. speed limit to 55 mph in 1974 was the entire reason, nevertheless, more than 10,000 fewer people died on Ameri-

can highways that year than in 1973. Also, the number of fatalities per 100 million miles (161 million km) driven dropped from 4.11 to 3.52. The Federal Republic of Germany, with no speed limit on super-highways, has more than twice this fatality rate.

In addition to the major energy savings from efficient autos and lower speeds, there are numerous small things that you can do to save gas. Though each may produce only small savings, if taken together the total can be significant. The chart on page 6 lists some of these ways to conserve.

Another method of saving energy is to avoid overheating homes and businesses in the winter and overcooling them in the summer. The benefits are more than financial. "One of the commonest causes of 'catching cold,'" says Dr. Harry Johnson in *Invitation to Health*, "is the overheating of homes, shops, offices, schools, and almost every other place where people gather." He notes that very warm overdry air "tends to dry out the air passages of the nose and throat and to lower their resistance to infection." And lowering a home thermostat by just 6 degrees F (3.3 degrees C) may save 35 to 40 percent on fuel bills. Often it could be lowered even more if warmer clothing were worn indoors.

Even greater benefits can be gained by cutting back on the use of air conditioning. Most air-conditioned buildings have been kept colder than necessary for comfort. Of course, some persons like it cooler and some like it warmer, but tests show that 97 percent are comfortable at 78 degrees F (26° C). And it takes 60 percent more energy to cool a home to 72 degrees than to 78. As an energy-saving measure, the United States government issued a directive in July making it illegal to cool public buildings below 78 degrees. Dr. Stephen Rosen, an expert on weather and health, says: "Air conditioning probably postpones

our acclimatization to summer heat," and, as a result, "workers in air-conditioned quarters tend to have more ailments, feel more uncomfortable, have more headaches than those who work in non-air-conditioned spaces."

There are many other things that you can do to conserve home heating fuel. The chart on page 7 lists some that, when combined, can significantly reduce your costs. For example, in many homes, adequate insulation alone can cut heating bills by as much as half.

Changes Ahead

Regardless of what people do in the way of conservation, the way of life to which many are accustomed may be in for a change. Will they finally have to give up traveling in the family automobile and go back to public transportation to save fuel? Will they be forced to cut back on their free-and-easy use of air conditioning, stop heating their backyard swimming pools, and dim streets now brilliantly lighted by advertising signs?

"But," they may object, "not so fast. Before you take away all our laborsaving appliances, our electric can openers and carving knives, our electric shavers and toothbrushes, our electric lawn mowers and hedge clippers, our gasoline motor-boats and snowmobiles—what about some of the other sources of energy? Aren't there other things we can fall back on if the oil runs out?"

Others protest that the shortage is not so bad as it is made out. They hear about the oil glut on the West Coast in the United States because of more oil coming in from the new Alaskan field than can be fed into Western refineries or transported to the East. There is said to be still a large surplus of natural gas, tied up in political wrangles about how much to charge for it. Mexico reports discovery of an oil field

that may be larger than that on the Arabian Peninsula. What does all of this indicate?

In recent surveys in the United States, two thirds of the people voiced the opinion that the fuel shortage is a hoax. Some believe it was foisted on the public by conniving oil companies to fatten their profits. The situation is surely confused, and confusing. Nonetheless, we need to face the realities of the immediate future. Every one of us is concerned, because our daily lives will be affected by the outcome of the fuel crisis.

Other Sources of Energy

It is true there are many possible sources of energy to which we might turn to lessen our dependence on petroleum. Coal is still abundant in many parts of the earth, enough for a long time to come. Already energy from nuclear fission has become an important part of the electric power supply in several countries. The reserves of uranium appear likely to outlast the petroleum, but they are becoming more expensive to mine and refine. Looking farther ahead, we are told that nuclear fusion promises unlimited energy drawn from the oceans' water.

The energy in sunlight is constantly supplied from an inexhaustible source. Man has long used power from the sun indirectly, by burning wood, and through water-powered generators and windmills. It may be possible now to generate electricity from the sun's heat and light. Any practical system for getting power from the sun would provide an ideal solution to the energy problem, because the sun shines everywhere.

Of course, when we talk about replacing one kind of energy with another, we recognize that not all kinds are equally useful. Coal can replace oil to drive electric turbines or locomotives, but not to run auto-

mobiles. Nuclear power is practical only in very large power plants, but solar power might be found useful in units small enough for individual homes. Hydroelectric power must be carried on high-power lines from river dams to cities. Geothermal heat is useful in volcanic regions, but not everyone lives next to a volcano.

Also, some energy sources cause pollution, which becomes intolerable on a large scale. Coal furnaces put smoke and soot into the air and ash heaps on the ground, hydrocarbon fuels are responsible for smog,

and nuclear energy worries us with its radioactive emissions and long-lived wastes. Wind, water and solar power are free of such handicaps.

Financial interests rooted in the present economic system also have to be considered. Large investments of capital in power plants and extensive distribution networks might become obsolete with some foreseeable shifts in energy sources. There will be resistance to change, even a change that might be clearly desirable or inevitable in the long run.

How much ENERGY is in the ground?

COAL and petroleum have been main sources of energy since the beginning of the Industrial Revolution in the early 19th century. But they are energy sources that are generally classed as not renewable. So the burning question for us today is, How long can we depend on these fossil fuels before they are all used up?

Coal was the first to be exploited as Europe and the United States plunged into the industrial age. It came to be used in great quantities in the manufacture of steel and cement. Coal supplied power to railway locomotives on land and steamships at sea. We burned it to heat our dwellings and workshops. Beginning in the late 1800's, coal was also used to run electric generators in central power plants.

When petroleum became available, its abundance and low cost led to its use in place of coal for many purposes. Importantly, the convenience of liquid fuel and the ease of igniting it promoted the rapid proliferation of automobiles for private use, trucks for hauling freight, and airplanes for rapid travel. Industrialized nations came to rely heavily on petroleum as an indispensable source of energy.

Profligate Use of a Resource

The promise of fabulous profits prompted enterprising oil drillers to get the first foothold in rich new oil fields. The natural gas that blew out of many wells was considered only a by-product, sometimes almost a nuisance. At the wellhead, its value was rated so low that it was often burned off merely to get rid of it. But with net-

works of pipelines, it could be profitably delivered to industrial plants and ordinary homes at very low cost.

In oil-rich countries the profligate use of energy was encouraged in every way. It was so cheap that waste was condoned, and conservation was not worth thinking about. Forward-looking persons realized that this could not go on forever; sometime the pools of petroleum must become exhausted. But the known reserves of petroleum at a given time were sufficient for many years' use, and discoveries of new fields kept adding to the reserve faster than it was depleted.

Mass production of automobiles brought their price within the reach of nearly everyone, and automobile manufacturers grew to be giant corporations, vying to outsell one another with alluring gadgets added to each new year's models. Governments taxed the sale of cheap gasoline and built superhighways everywhere. Cars were sold by the tens of millions to people eager to travel ever faster and farther. Oil companies followed the policy of looking for maximum immediate profits, and little concern was shown for the shortages that were bound to fall on a future generation. But now that generation has arrived.

Determining How Much Is Available

Earlier optimism about how long the

petroleum would last was shattered by the political embargo imposed by the Arab nations in 1973. An international panel of experts in 1978 warned that the supply of oil would fail to meet the increasing demand at the latest within 20 years, and perhaps in as few as five. Recent events have prompted alarm that a permanent world shortage is likely by the early 1980's.

Serious problems are suddenly upon us. The supply of oil is no longer determined solely by the technological ability to find and produce it. It is affected even more by political maneuverings. Governments have imposed complex tax structures and artificial price controls. Oil executives complain that there remains little incentive to undertake expensive drilling to find new fields or to build the new refineries needed to supply the relentlessly growing demand.

Multinational corporations have promoted the production of oil in once backward countries for export to industrial countries. Now the most plentiful supplies of oil and the largest consumers of oil are found in different, often antagonistic, political domains. The OPEC nations, complaining that they had been exploited by more powerful nations, banded together to restrict the supply and thus raise prices and enforce political demands. To stave off the threat of new embargoes, political

ENERGY FROM:	USE PER YEAR:		WHAT'S LEFT:	
	U.S.	WORLD	U.S.	WORLD
Petroleum	38	107	175	3,300
Natural Gas	20	37	200	1,500
Coal	13	94	11,000	35,000
Hydroelectricity	3	12	Renewable	
Nuclear Fission	3	5	230	670
TOTAL	77	255		

The numbers in this table are in terms of the relative energy equivalent of each source. The units are quadrillion (10^{15}) of British thermal units. One Quad is 1,000,000,000,000,000 B.T.U. One Quad is equivalent to 170 million barrels of oil, or one trillion

cubic feet of natural gas, or 40 million tons of coal, or 210 tons of uranium oxide and is sufficient to generate 100 billion kilowatt-hours of electricity. The numbers in the first column are fairly exact. Those in the last two columns are estimates.

leaders talk about conservation and alternate energy sources. However, their proposals to reduce speed limits on the highways, to turn down the thermostat on heaters, and greatly to increase the price of fuels meet with indifference and even indignant resistance.

But the fact must be faced. No matter what steps are taken to conserve and stretch out the supply, the world's petroleum is already falling short of the de-

mand. It is tantalizing to be told that the rock pores of exhausted oil pools still retain two to three times as much oil as has been pumped out, but this can be recovered only in small part by expensive methods. Even the discovery of large new fields, such as those in Alaska and in Mexico, can do no more than postpone for a few years the ultimate depletion of the world's petroleum. It will inevitably run out in the next few decades. What then?

UNTIL 1940, coal was the world's chief commercial source of energy. Since then the amount of coal mined has changed but little, but the use of petroleum and natural gas has grown so fast that coal now supplies only 30 percent of the world's energy. This has not been because of any problem of supplying coal, but basically because petroleum was cheaper. If oil comes to be too expensive and finally runs out, can we not switch back to coal?

There is certainly plenty of coal. There is enough in known deposits to supply all the energy needed for at least 150 years. Many new mines would have to be opened, and transportation facilities by railroad and steamship would have to be expanded to match, but the coal is there.

For generating electricity and for manufacturing, coal is a practical substitute for oil. But to heat the home, it has obvious drawbacks.

Heating Our Homes

Many of our older readers will recall the daily wintertime chore of shoveling coal into the furnace out of a black, dusty bin, and later shoveling the even dustier ashes into barrels to be taken to the dump. And some skill and patience were needed to kindle a bed of coals after the fire had gone out. When these onerous chores are compared with the convenience of simply ad-

**Should we
go back
to**



justing a thermostat that automatically turns on the gas or oil-injection device and ignites it from the pilot light, few would relish a return to the "coal age."

Remember, too, how in towns or cities where everyone heated with coal, a freshly fallen blanket of snow was quickly darkened by the soot falling from hundreds of chimneys. A generation accustomed to the cleanliness and convenience of petroleum fuels will be reluctant to make room again for a coal bin in the house.

What About Automobiles?

When it comes to running our automobiles without gasoline, coal is out of the

question. Only liquid or gaseous fuels will work in an internal-combustion engine. But, as mentioned above, coal differs from petroleum largely in its hydrogen content. Coal can be hydrogenated to convert it to a liquid or gaseous fuel. This was done on a large scale to supply Germany's need for gasoline in World War II, and the process is used in South Africa today. However, it will require a major mobilization of the petroleum and chemical industries, probably with government subsidies, to produce synthetic fuels on the scale needed to replace oil. In the near future, such fuels will be available only in small quantities and at very high prices.

A more immediate possibility is to power automobiles with electric storage batteries. The electric automobile is already fairly common in some cities, providing local transportation for individuals or families. The batteries are kept charged by plugging them into a utility outlet in the garage. However, the speed, range, and capacity of such cars are much less than today's average motorist demands.

Larger electric-powered cars or trains are well suited to mass transportation. Electric trolley cars, drawing power from an overhead wire, were common in city and interurban travel before automobiles and buses displaced them. High-speed electric trains are still common in Europe and Japan, as well as in metropolitan subways. All of this is compatible with power generated in central plants from coal, but it implies a shift from the individual motorcar back to mass transportation.

Pollution Problems Continue

By a change from oil to coal, air pollution will be changed, but not eliminated. One of the principal contributors to smog, the partially burned hydrocarbons from automobile exhausts, will cease to be a problem, but the oxides of nitrogen and sulfur may be as bad or worse with coal.

More efficient combustion will have to be achieved to avoid a return to the smoke-laden atmosphere of industrial cities of 50 years ago.

Another kind of pollution is unavoidable and irreversible as long as any kind of fossil fuel is burned. This is the buildup of carbon dioxide in the atmosphere. Since the beginning of the Industrial Revolution, we have taken so much carbon out of the earth and put it into the atmosphere as carbon dioxide that its global concentration has increased by 5 percent. Some scientists believe that the climate may be delicately balanced at the normal concentration, and if this is disturbed too much the whole earth may be warmed enough to melt the Arctic and Antarctic ice caps. There is even concern that it could get too hot to support life.

While other sources of energy may ultimately supply the bulk of man's needs, it appears that none of them can be developed soon enough to compensate for the rapidly vanishing reserves of petroleum. The only energy source that can be exploited soon enough to fill the gap is coal.

But could the use of coal, then, really be the "solution" to the energy problem? The Bible shows that God's purpose is for all this earth to become a paradise. Dependence on an energy source that pollutes the environment is not consistent with that. Furthermore, the Scriptures state that God made the earth to be inhabited forever, with God-fearing people enjoying eternal life on it. (Isa. 45:18; Ps. 96:10-13; John 17:3) Surely, then, he must have made available stores of suitable energy that would last beyond the 1980's—yes, beyond the next 150 years.

What energy sources fit such a description? How can they be utilized? Future issues of *Awake!* will consider these questions, as well as what men are doing to cope with their immediate problem.

HAS MASS PERSUASION AFFECTED YOU?

by "Awake!" correspondent in Australia

DURING World War II, the term "brainwashing" was introduced to describe methods employed by one group to force its ideas upon another group. An individual's previous ideas would be "washed" from his brain and replaced with new ideas and beliefs. The techniques used and the reasons for their use give some insight into the workings of the human brain and how it can not only be "washed" but also be persuaded to adopt viewpoints held by the majority.

When the brain is subjected to abnormal stress, it sets up an inhibitive reaction for protection against brain damage. This process involves three stages: (1) A leveling of responses. Response to important and trivial matters becomes the same. Feelings do not vary greatly. (2) Trivial things cause greater disturbance than matters of real importance. (3) A complete reversal sets in. Likes become dislikes and vice versa. At this stage the "brainwasher" implants his point of view. Then the brain will accept ideas previously hated.

The person most easily brainwashed is the "normal," average individual. Such a one is already conditioned to accept opinions of others rather than to form strong convictions of his own. On the other hand, those hardest to brainwash are ones with unconventional ideas and strong convictions and who are not afraid of what others think.

The Making of "Heroes"

An example of effects from mass persuasion concerns Australian bushranger Ned Kelly. He is often depicted now as a courageous "Robin Hood" and fighter against social injustices. He did, indeed, appear to be a remarkable man—handsome, tough in physique, clever and a good organizer.

But police records show charges against him that include assault, highway robbery, bank robbery, indecent behavior, drunkenness, horse stealing and multiple murders.



Are You Affected?

Often propaganda is indirect and can cause a change in thinking without one's being aware of it.

In *The Hidden Persuaders*, author Vance Packard opens by saying: "[This book] is about the way many of us are being influenced and manipulated—far more than we realize—in the patterns of our everyday lives." He later quotes Dr. Ernest Dichter, president of the Institute for Motivational Research, as saying that the successful ad agency "manipulates human motivations and desires and develops a need for goods with which the public has at one time been unfamiliar—perhaps even undesirous of purchasing."

Mr. Packard shows how psychological consultants are employed to investigate even our

baser motives. Among the studies that he cites is one done for a fountain pen company "on the sensuality and sexual connotations of pens." He labeled an investigation by another corporation as "a classic example of the way motivation analysts found merchandising possibilities in our deeper sexual yearnings." Packard further notes that certain advertisements use "overtones of masochism, body exhibitionism, and so on."

You Can Protect Yourself

How can you protect yourself against such subtle persuasion? The following five points can be helpful:

1. *Have strong convictions:* As noted above, the person most easily brainwashed is the one quickly swayed by others. Do not go along with an idea just because your associates accept it. Make sure that the views you adopt are truthful. The best way to do that is by comparing them with the inspired Word of God, which is ultimately "the truth."—John 17:17; 2 Tim. 3:16.

2. *Find the reason:* Inadvertently we often accept attitudes without knowing what is behind them. For instance, people in your community may have a negative view of certain races or ethnic groups. But why? If you find the reason unconvincing, why adopt the viewpoint?

3. *Resist improper thoughts:* A dry sponge when immersed in liquid absorbs quite a lot. Even after it has been wrung out several times, some of the liquid remains. As for our minds, it is hard to avoid seeing, hearing or otherwise experiencing improper thoughts. But must we soak our minds full of them? Doing so will adversely affect our judgments and actions. How much better to resist improper thoughts and to dwell upon things that build up!—Eph. 5:3-5.

4. *Speak up for what you know to be right:* This will give you opportunity to

test what you believe and more firmly entrench the truth in your life. If you are convinced of the truth of a matter after thorough search, do not be disconcerted by ridicule from others. The Bible shows that Noah was convinced there was going to be a worldwide flood and he talked to others about it. (2 Pet. 2:5) Indifference on the part of Noah's contemporaries did not change the facts. There was a global flood.—Gen. chaps. 6-8; Matt. 24:37-39.

However, with regard to speaking up for what is right, it is important to keep in mind this Scriptural guideline: "He that is correcting the ridiculer is taking to himself dishonor, and he that is giving a reproof to someone wicked—a defect in him. Do not reprove a ridiculer, that he may not hate you. Give a reproof to a wise person and he will love you." (Prov. 9:7, 8) No good purpose is served by debating or wrangling with someone bent on defending his personal opinion regardless of whether it is right or wrong.

5. *Live the truth:* Do not look for excuses to compromise what you know to be right. Remember, if something is right and proper, it will work out for your good. Do not be tricked into thinking that you are missing out on something or that you are unduly restricted because you conform to what is right.

In some respects our minds are like a container of water. If one adds just a drop or two of ink, all the water quickly becomes colored. Do not allow mass persuasion by popular opinions to sway you into accepting viewpoints that the Scriptures show to be wrong. Rather, obey the inspired counsel: "Whatever things are true, whatever things are of serious concern, whatever things are righteous, whatever things are chaste, whatever things are lovable, whatever things are well spoken of, whatever virtue there is and whatever praiseworthy thing there is, continue considering these things."—Phil. 4:8.



A SATISFYING SNACK

POPOPORN is no "junk food." It is a nutritious whole-grain snack.

The kernel is practically all hard starch, but inside it there is a tiny amount of moisture that turns into steam when heated and explodes into a fluffy, fragrant, white ball 30 to 40 times its original size. At the same time that warm, tantalizing aroma fills the room.

Its Value as a Food

Nutritionist Kay Munsen of Iowa State University says: "Plain popcorn is an ideal snack. It is not sugary, sweet, fatty, too salty, expensive, or fattening." And Dr. Betty Alford, chairman of nutrition and food sciences at Texas Women's University, has stated that one big advantage of eating popcorn is that "it's filling but you're not ingesting a lot of calories." In fact, one cup of unbuttered popcorn has 23 calories compared to 230 calories in one cup of corn chips.

If you don't drink anything the whole time you're eating it, the dry popcorn draws the fluids out of your system and gives your saliva glands a healthy workout. Besides, it is like swallowing a sponge that soaks up stomach acids, and does away with heartburn and indigestion.

According to the U.S. Department of Agriculture, popcorn is 77 percent carbohydrate, 12 percent protein, 5 percent fat and 2 percent minerals. The tiny kernels contain the B-complex vitamins—niacin, thiamine and riboflavin, as well as vitamin E.

The American Dental Association recommends popcorn as a snack because it is crunchy, not sticky, and contains no sugar. So much chewing has to be done to break it up that eating popcorn is good exercise for teeth and

gums and has a certain amount of cleansing action.

Popcorn was introduced to early American settlers by the Indians. Today it is popular at movies, ball parks, zoos, the circus and all sorts of sporting events. In the United States, however, about 85 percent of popcorn consumed is prepared at home.

Some Tips on Preparing It

Popping the small roundish kernels is so simple that children delight in doing it. It can be popped in a wire basket shaken over the fire, in a skillet, automatic frypan, Dutch oven, or a more elaborate electric popper.

Watch that you don't put too much corn in the popper! About one half cup of kernels with three tablespoons of oil (butter will burn) will fill a four-quart popper heaping full.

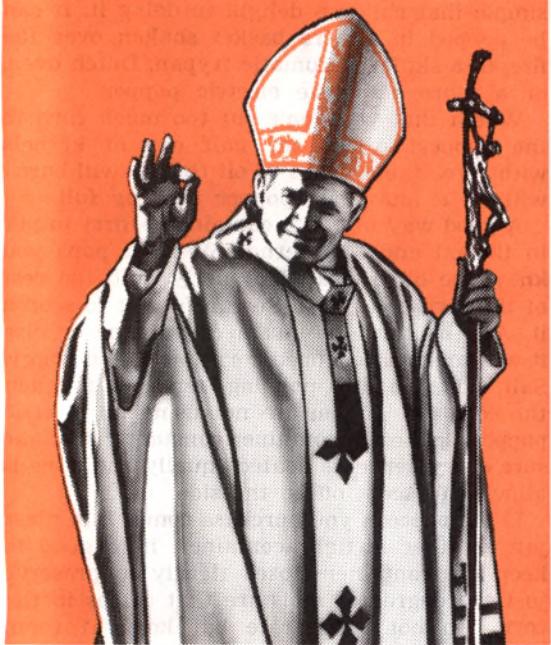
A good way to test a container is first to put in the oil and one kernel. When it pops you know the oil is heated properly. Add the rest of the corn and cover. Be careful not to scorch it. And be sure the steam can escape or else it will make the popped corn tough and soggy. Salt, added before popping, tends to toughen the corn too. If you are not using an electric popper, shake the container constantly to make sure every kernel is heated equally and none is allowed to scoot off to the side.

If the popcorn you purchase comes in a glass jar or other airtight container, it is good to keep the container closed tightly to preserve just the degree of moisture that comes in the corn. Do not refrigerate but keep at room temperature. If low in moisture content because it is old or has not been vacuum sealed, then put it in a cheesecloth bag, submerge it in water, drain and hang up in a cool cellar for at least 24 hours before popping.

Freshly popped corn, warm and fragrant, is hard to improve on. But if there is a bad aspect, it might be that it can be served in so many combinations that make it a confection. Who can resist caramel or molasses popcorn balls? There are recipes for making peanut-butter nougat bars, popcorn mint chocolate bars, even popcorn pies. Or, if you prefer, it is easy to add to buttered popcorn a pinch of garlic and onion salt and some shredded Cheddar cheese, melted and gently stirred to create a mouth-watering snack!

This is far afield from the simple bowl of lightly buttered popcorn with which we started. But, however you serve it, a big bowl of popcorn can be a fragrant, hunger-satisfying snack.

JOHN PAUL II ON THE MOVE



**CAN HE UNITE HIS
DIVIDED CHURCH?**



NEVER has a pope traveled so much in such a short period of time. Mexico, Poland, Ireland, the United States—John Paul II visited them all within the first year following his election on October 16, 1978.

Judging from the enthusiastic receptions he received in each country, a person might conclude that the Catholic Church is enjoying the best of times. In Poland, the pope's homeland, there was a special welcome. About half of the country's 35 million population were said to have seen him during his visit in June.

Does such interest in John Paul II reflect a strong Catholic Church, or something else? How have peoples been affected by his visits?

The Church in Crisis

Rather than being strong and enjoying the best of times, the Catholic Church is experiencing difficult times. "Our church," wrote U.S. theologian Edward J. Foye, "is in a dangerous and unhealthy state." (*National Catholic Reporter*, Oct. 19, 1979) "We're in anguish," said Monsignor John Tracy Ellis, dean of American Catholic historians. "There is not a seminary that is not divided between the right and the left and the status quo."

In the United States alone, some 10,000 priests have left the priesthood since the mid-1960's, and few persons any longer are choosing the priesthood as a profession. In 1965 there were 49,000 U.S. seminarians; in 1978, only 11,200. The situation with the nuns is even worse. In 1966 there were 181,421 of them, but the number has dropped by more than 50,000. Catholic schools in the U.S. close at the rate of almost one a week because of a lack of nuns.

In other countries visited by the pope the situation is perhaps even more critical. Reporting on last January's trip to Mexico, the *New York Times* noted:

"Pope John Paul II will arrive in Mexico this week on a delicate mission—to forestall an open rift between the conservative and progressive wings of Latin America's Roman Catholic Church. . . .

"His decision to go to Mexico reflects the gravity of the situation . . . Since 1968, the Latin American church has become deeply involved in politics, and progressive priests are rebelling against the traditional discipline of their bishops."

"Profoundly Moved"—How?

During the pope's visit to their countries, news commentators said the crowds were "profoundly moved." But in what way? Editor-in-chief of *The Observer* of London, Conor Cruise O'Brien, wrote:

"If I could see any sign that people are behaving better, after watching and seeing the Pope, I would feel that they had indeed been 'profoundly moved,' and I would rejoice . . . Unfortunately, I can see no sign at all of such an improvement. . . .

"The Pope condemned violence, repeatedly and in strong terms. The [Catholic] Irish Republican Army then gave a press conference in which it announced its intention of carrying on as usual."

Six days after John Paul II appealed to Catholics in Ireland 'to turn away from violence and return to the ways of peace,' terrorists shot dead a 38-year-old Protestant dock worker. Apparently in retaliation, Protestants the next day killed a Roman Catholic man. "And so it all continues, just as we knew it would," said an Irish parish priest.

Nevertheless, crowds were visibly moved by the pope's presence. But it was in a way similar to that in which crowds are moved by the presence of a famous movie star or politician. Indeed, the pope would arrive with the colorful pomp and ceremony of a member of royalty—a spectacle to behold!

The pope's training as an actor obviously helped him in his rapport with the crowds. He had toured Poland with a theatrical company before entering the

priesthood. Kissing the ground on arrival, joking and singing with the people in their own languages, kissing babies and reaching out to clasp hands, the pope quickly became a popular figure in the countries he visited. *Time* magazine noted that he displayed "a deft politician's hand that would have shamed Lyndon Johnson," the late American president.

But despite the pope's personal popularity, the *U.S. Catholic* of November 1979 observed: "We aren't even listening, much less applying what he says to our lives." Why not?

Why the Pope Is Not Heeded

There are a number of reasons. A fundamental one is loss of credibility. A Catholic from Philadelphia said of John Paul II's visit to his city:

"He drove the parade route protected by the guns of hundreds of police, walked up the red carpet to the pinnacle of the \$200,000 platform surrounded by the military plumage of the Knights of Columbus. Later he dined at one of the most luxurious mansions in our city, the cardinal's home, accepted priceless art treasures from Caesar and then asked the St. Charles Borromeo seminarians to keep the Word of God pure. . . .

"And then this happy, friendly, gentle man who captured our emotions returned to Rome to his Castle Gandolfo, to his Temple St. Peter's, to his armed Swiss Guards and to his library and museum of priceless treasures. . . .

"He told us of the greater responsibility of rich nations to redistribute their wealth to the poor. Should not that responsibility extend to the Vatican also?"—"National Catholic Reporter," Oct. 26, 1979.

Virginia M. Rickmeier of Chicago, no doubt speaking for many Catholics, said: "Listening to the Pope, particularly about 'worldly matters,' would be easier if he practiced what he preached. It is somehow difficult for a family, struggling to meet day-to-day expenses, to think of giving to the poor when the pope lives in grandeur.

How many of the laity can boast a summer residence? . . . How can one truly compare today's papacy with all its pomp to the humble, yet strong and venerable Saint Peter?"—U.S. *Catholic*, November 1979.

Indeed, what a contrast between the splendiferous life-style of Catholic leaders and that of Christ and his apostles! Yet it is not because of this contradiction that most Catholics are not heeding the pope.

Birth Control

Perhaps the main reason that they are not heeding the pope is his view on birth control. As one person said: "When you believe the Pope is dead wrong on an issue, as in 'Humanae Vitae,' it is difficult to put much stock in further statements."

About 50 years ago Pope Pius XI asserted in an official pronouncement that "those who indulge in [artificial birth control] are branded with guilt of a great sin." Pope Paul VI did not want to put the Church's doctrine of papal infallibility in question. So, in 1968, he issued his famous encyclical *Humanae Vitae* (Of Human Life), in which he affirmed that for Catholics "each and every marriage act must remain open to the transmission of life."

It was this position that most Catholics were hoping John Paul II would change. A poll released on the eve of his visit to the United States showed that 66 percent wanted him to approve artificial methods of birth control. But what happened? On October 5 the pope told an assembly of U.S. bishops in Chicago:

"You rightly spoke against both the ideology of contraception and contraceptive acts, as did the Encyclical *Humanae Vitae*. And I myself today, with the same conviction of Paul VI, ratify the teaching of this encyclical, which was put forth by my predecessor 'by virtue of the mandate entrusted to us by Christ.'"

Yet relatively few Catholic couples agree with the pope. And since neither do many

priests, his directives go unheeded. "Who is the Pope to come into my bedroom?" demanded one Catholic mother years ago. "It seems to me all a matter of conscience."

John Paul II would have done well to heed the apostle Paul's advice at First Corinthians 4:6, as rendered by the Catholic *Jerusalem Bible*: "Remember the maxim: 'Keep to what is written.'" By going beyond what is written in God's Word, the pope has prolonged the tremendous dissent and division within his Church.

Celibacy

The long-existing Church decree prohibiting members of the clergy to marry has caused many of them also to turn a deaf ear to the pope. Literally hundreds of thousands of priests and nuns have quit since the 1960's, largely due to this decree. Yet, on October 4, in Philadelphia, John Paul II restressed the need for priests to remain celibate.

However, this is not what the Scriptures teach. The Bible shows that even the apostle Peter and other apostles of Christ were married. The following day, October 5, Catholic columnist Gary Wills noted this in the Chicago *Sun-Times*, citing Mark 1:29-31 and 1 Corinthians 9:5. He then raised the question as to why the Church has covered up the existence of Peter's wife, and explained:

"The answer, of course, is that Rome's celibate priests tried to ignore the scriptural evidence for Peter's married apostolate. They have assumed or asserted that only a celibate priesthood is worthy—thus calling Peter's priesthood unworthy. The apostolic norm is denied . . .

"I find it odd that Pope John Paul, traveling as the successor of Peter, will emphasize in America the importance of a celibate priesthood when Rome is forever emphasizing the importance of St. Peter among the apostles, though he exercised that apostolate in the company of his wife."

Thus, because of feeling unjustly forced to submit to a man-made law, many priests and nuns have left. Some have left the Catholic Church altogether, no doubt being reinforced in their decision by discovery of the Bible warning: "Now the Spirit manifestly saith, that *in the last times some shall depart from the faith*, giving heed to spirits of error, and doctrines of devils, . . . forbidding to marry."—1 Tim. 4:1-3, Catholic Douay Version.

A Uniting or a Dividing?

Of course, the pope hoped by his visits to heal and unite the Church. But it seems the opposite has occurred. "We were beginning to speak to one another and to heal the wounds of the '60s," said Monsignor John E. Egan of Notre Dame. "We were beginning to listen again, to hear other people's views. We have now opened the wounds again. While we are all united in our admiration of the Pope, we are once more divided on the issues of the church."

Yet more than merely the pope's views on religious teachings are causing division and concern. A case in point is his handling of a scandal involving his friend, Polish priest Michael M. Zembrzuski, as reported in the *National Catholic Reporter* of September 21, 1979. Zembrzuski headed the monastic religious order Pauline Fathers (Order of St. Paul, the First Hermit) in the United States. But breaking his poverty vow, Zembrzuski 'wheeled and dealed' financially, squandering, it was claimed, millions of dollars in charitable donations.

Bishop George H. Guilfoyle and the then head of the Passionist Fathers in Chicago, Paul M. Boyle, were appointed as Vatican investigators. In an investigation taking years because of its complexity, they found Zembrzuski's style of living "immoral," "insidious" and a "scandal." Among other things, they wrote:

"Father Zembrzuski entertained lavishly, spending huge sums of money on himself and his friends. His friendship with a woman, whom he supported generously with monastery funds, gave rise to many rumors and accusations."

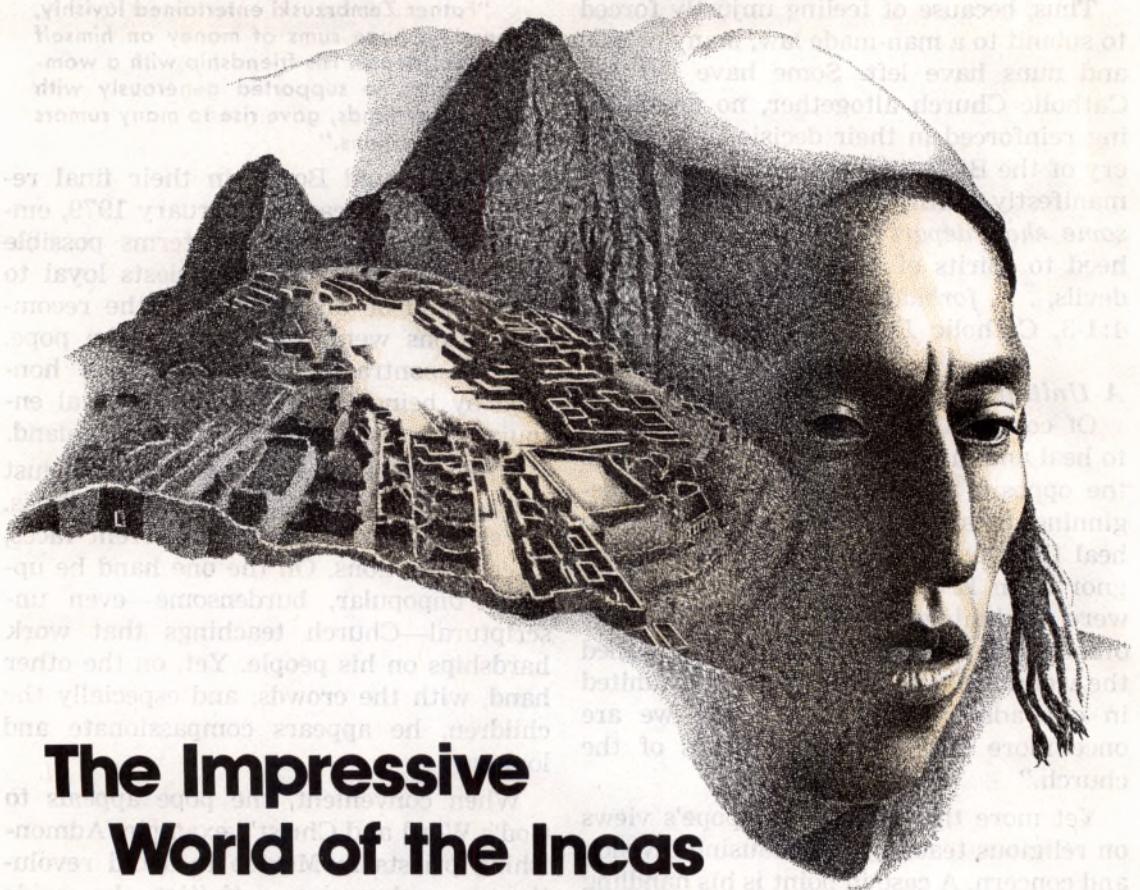
Guilfoyle and Boyle, in their final report to the Vatican in February 1979, emphasized in the strongest terms possible that Zembrzuski and the priests loyal to him should be dismissed. But the recommendations went unheeded by the pope. To the contrary, Zembrzuski was honored by being included in the official entourage for the pope's June visit to Poland.

Such actions cause many to wonder just what kind of man John Paul II really is. He seems to be a man of different faces, of contradictions. On the one hand he upholds unpopular, burdensome—even unscriptural—Church teachings that work hardships on his people. Yet, on the other hand, with the crowds, and especially the children, he appears compassionate and loving.

When convenient, the pope appeals to God's Word and Christ's example. Admonishing priests in Mexico to avoid revolutionary, subversive activities, he said: "The Gospels clearly show that for Jesus anything that would alter his mission as the Servant of Yahweh [Jehovah] was a temptation."

Yet, does the pope practice what he here preached? Does he himself follow Christ's example? How often have you heard him proclaim the name and purposes of "Yahweh, Most High over the whole world"? Yet Jesus said in prayer to Yahweh: "I have made your *name* known."—Ps. 83:18; John 17:6, *Jerusalem Bible*.

The pope's failure to make known God's name and to stick faithfully by God's Word, would suggest that John Paul II never will prove successful in uniting his divided Church, regardless of how many trips he makes.



The Impressive World of the Incas

LEAVING the city of Lima, our plane rapidly gained height in the direction of the Andes mountains. Soon we landed at Cuzco, the heart of the ancient world of the Incas!

The Inca Empire grew quickly from a tiny spot to an area the size of Belgium, Luxembourg, the Netherlands, France, Switzerland and Italy combined. Then, faster than its spectacular rise came a sudden fall at the hands of but a few Spanish adventurers.

Who were the Incas? What kind of life did they lead? What brought about their fall and disappearance?

Dawn of an Empire

Our Peruvian guide explained that the first Inca, Manco Capac, is said to have

founded the city of Cuzco on a spot indicated by the sun-god. Historically, however, Inca history begins about 1200 C.E. At the time, the Incas were nothing but lords of Cuzco and one of the numerous Andean tribes. More specifically, "Inca" was the emperor's title. In modern usage the people of the empire are understood by the term Incas as well, although they probably called themselves *capac-cuna*, that is, "glorious ones."

The Inca war machine started slowly. In time, they met head on with the powerful Chanca tribe. But the Chancas were by no means willing to surrender. In fact, they made a surprise attack on Cuzco and invaded the city. Viracocha Inca escaped. But his son, Pachacutec, stood his ground. He organized the defense and routed the

Chancas. Now the stage was set for the rise of *Tahuantinsuyu* ("the Four Quarters of the World"), the Inca Empire.

After his father's death, Pachacutec (meaning "earth shaker") was made Inca in 1438. Under him and the son who succeeded him the borders of the empire were pushed out until they embraced some 380,000 square miles (984,195 km²), largely in what is now known as Peru, Ecuador, Bolivia and Chile. Most of this expansion was accomplished in the space of a mere 30 years, between 1463 and 1493, and in some of the most rugged terrain on earth.

A Welfare State

Pachacutec excelled not only as a warrior but also as a civic planner and administrator. Commenting on the civic organization, our guide caused astonishment as he described the Inca Empire as a welfare state. No one went hungry, he explained, but on the other hand, no laziness was tolerated.

Every person belonged to an *ayllu*, a clan of families living in their assigned area. They shared land, crops and animals. The land was owned by the *ayllu* and was simply on loan to its members. Every year in the fall the land was reapportioned. According to the size of the family the land was either increased or decreased.

The mainstay of their culture was agriculture. The people had to plant for all: for the state, for the priesthood and for themselves. The crops from state lands were stored for use by the nobility, public servants and the army, as well as the people in times of crop failure.

As for taxes, these were exacted in the form of service on public works. Additionally, every able-bodied tax-paying Indian male was subject to do military service at any time.

What else was expected of the people? A notable Inca requirement was that every man should marry at the age of 20. And

if he hesitated, the chieftain would select a wife for him.

While we pondered this form of regimentation, the guide touched on another aspect of it. Every 10 tax-paying workers were directed by a *conka-kamayoc*. Ten such groupings had a foreman over them. Ten foremen came under the jurisdiction of a superior, such as a village headman. A district governor was over 10,000 people. Ten districts fell under an *apo*, a governor of a quarter. The state itself had four quarters, divided naturally by the four roads that went out from Cuzco, the capital. The entire setup required 1,331 officials for every 10,000 people and provided control down to the last man in the state.

The "Divine" Inca

At the heart of Inca civilization was the emperor himself, who enjoyed maximum privileges as a "descendant of the Sun." Usually a council of advisers chose as successor the most capable of the legitimate sons of the Inca's *coya*, or principal wife. Although he had a harem of concubines, the *coya* was his real wife, and in most cases also his own sister.

The Inca was political ruler, head of the state religion and "divine" to the people. His rule was absolute and shrewd. How so?

The Inca's many descendants occupied positions of trust as key administrators. For example, the governors of the four quarters were all blood relatives. And the Inca at the time of the Spanish conquest, Huayna Capac, is said to have had 500 male descendants.

Newly conquered populations were absorbed into the mainstream system of work service. However, suspicious sections of the subdued population were transplanted and loyal Quechua-speaking people called *mitakona* took their place and introduced Inca culture.

The Inca organization and integration was so well thought out that down to this

very day it is in evidence. Some five million still speak Quechua, including the man who was acting as our guide. He compared the modern *comunidades* to the old *ayllus*. Agricultural practices, the character of the people, their music, all reflect the old Inca way of life.

Efficient Communication System

How was it possible to hold the vast empire together? Our guide pointed to the amazing network of roads and bridges and a courier system.

Mountain terrain making impractical the use of the wheel, the Incas never used it. So all roads were built for walking and llama transport. The 24-foot (7-m)-wide coastal road from Tumbes in the north to Purumuaca in Chile was 2,520 miles (4,056 km) long. The narrower Andean road was 3,250 miles (5,230 km) long, with 100 or more bridges.

Consider the efficiency of these highways. There was a system of distance markers every four and a half miles (7.2 km), and every 12 to 18 miles (19 to 29 km) there were rest stations. Additional smaller stations served the couriers or relay runners. Each runner, dressed in a distinctive checkered tunic, covered a mile and a half (2.4 km). In this way they could get a message over a 1,250-mile (2,012-km) stretch in five days!

Art and Architecture

In a local museum we discovered that Inca art was on the austere side. Their highly developed technique of weaving vicuña wool produced exquisite quality, but lacked imagination.

However, they excelled in the goldsmith trade. So highly prized was their art that goldsmiths and silversmiths lived in a separate district and were exempt from paying taxes. The Spaniards were thrilled with what they saw.

According to the way our guide de-

scribed Cuzco, there was gold everywhere. On some of the buildings, there was gold plate. Strands of gold were woven into grass-thatched temple roofs. The Temple of the Sun and its enclosure were replete with golden objects everywhere.

But whatever other contribution the Incas made to culture, it paled beside their architecture and city planning. Their work with monumental rock masses remains unmatched in the Western world. The size and number of buildings are stupendous.

Sacsahuaman, the fortress for the protection of Cuzco, is claimed to be one of man's greatest engineering feats. This structure is 1,800 feet (549 m) long. Three massive rows of stone walls, one above the other, reach up to a height of 60 feet (18 m). Some of the gigantic foundation stones weigh between 100 and 150 tons! The entire fortress is made up of some 300,000 stones.

Eagerly, we tested to see if we could insert a blade of a penknife between the rocks, but no! What system of polishing did they use to accomplish this? No one knows. What is more, these stones are locked in such a superb way that they have survived scores of earthquakes. And no one has been able to pry them out for other construction purposes!

Gods and Sacred Objects

What about the Inca concept of life and religion? State and religion went hand in hand. The Incas believed in the existence of a creator, Viracocha. At his side was said to be an army of lesser gods. Inti, the sun-god, was foremost. In fact, the sun-god became the symbol of Inca culture, and the worship of the sun the state religion.

There was a large priesthood as well as many temples. In regular, pompous ceremonies, the priests made divinations and offered sacrifices. But the people in general had their own brand of religion, less

sophisticated, connected with sacred places and objects, which they called *huaca*. Anything could be *huaca*—for example, a temple, a mountain, a river, animals, stones, mummies of ancestors, stars. Agriculture was holy and everything related to it became *huaca*. The sun was the greatest of holy objects. The people lived to remain in the *huacas'* good graces.

End of Inca Rule

At the height of Inca splendor and power, Huayna Capac died in 1527. Five years of civil war followed because of a struggle for power. But two weeks after Atahualpa's victory over his half-brother Huascar, the Spaniard Pizarro arrived on the scene. He had set out from Tumbes in the direction of Cajamarca with a mere 180 men, 67 of whom were knights on horseback. Atahualpa knew of their approach.

Was he curious? Was he overconfident? Or did he believe some superstition about those bearded white foreigners? No one knows. One thing is sure, if he had felt them to be a threat, he could have wiped them out as they climbed through the

crown his audacity, Pizarro invited Atahualpa to visit him in the city—but unarmed! Would Atahualpa accept? The setting of an ambush was nothing new to Inca military strategy. Nevertheless, on the evening of November 16, 1532, Atahualpa marched into the square of Cajamarca. He came in full regal dress, with attendants, but all unarmed. Had he reason to trust the strangers? Or was it a gesture of saving face, not wanting to appear a coward? We do not know.

A Roman Catholic priest came forward to greet the Inca. Author Hammond Innes describes what happened next: "It seems likely that the friar did hand Atahualpa the Bible, as the authority upon which the Christian faith was based, and that the Inca did throw it to the ground. However difficult he may have found it to follow the Dominican's theological argument, he can have been under no illusion as to the intention: this miserable stranger, with his tonsured head and his cross, was urging him to renounce his own divinity in favour of a god who had been stupidly killed by his own people, and at the same time to acknowledge, in the Emperor Charles, a king greater than himself. He was to forfeit, in other words, all that he had just fought so hard to attain. His anger at this effrontery was immediate, his rejection of the Book inevitable. The proud gesture as he pointed to the sun, and the words, 'My God still lives', are probably correctly reported."

All of a sudden, there was a cannon shot and then the Spanish cavalry attacked, rushing out of the small entranceways around the square. In 30 minutes the Indians were overwhelmed and 6,000 were killed. The only Spaniard wounded was Pizarro, by a sword cut while defending Atahualpa, whom he wanted alive. Atahualpa was a prisoner!

Atahualpa was promised his life if he

In Future Issues

- ***The End of Today's Economic Systems***
 - ***Asia's Unwanted Boat People***
 - ***Energy Prospects for the Future***
-

hundreds of narrow mountain passages. But Atahualpa sat and waited.

Eventually the Spaniards arrived and occupied vacated Cajamarca. Now, to

filled, as he had offered to do, the large room that served as his prison, once with gold and twice with silver. Objects came in from every corner of the realm. But the Spaniards were not satisfied. Their gold lust demanded more. Eventually, they amassed an incredible hoard.

But Atahualpa was alive, and he was not being released. Not that his side of the bargain had not been kept, but he was in their way. So among other things, they accused him of masterminding an uprising. More than that, they accused him of "crimes against the Spanish state" in his own country! He was tried and "found guilty." Pleading for a form of execution other than burning, which was against the Inca's religious belief of afterlife, he was garroted or strangled, but only after he had agreed to be baptized as a Roman Catholic. It was August 29, 1533.

The Inca people put up little resistance to the Spanish advance over the great highway to Cuzco. The capital fell on November 15, 1533. It spelled the end of Inca rule.

Neither the installation of a puppet Inca nor quarrels between the Spanish conquistadores, Inca revolts or the murder of Pizarro restored Inca power. A Neo-Inca state was short-lived, lasting only 36 years. To all intents and purposes, Tupac Amaru was the very last of the Incas. He was beheaded in the square of Cuzco. With him, the Inca clock of history finally stopped.

"All human beings have a common ancestry," says "The World Book Encyclopedia." "But many groups of people have lived apart for long periods of time and have come to differ from one another in various ways." That variety can add much to a person's enjoyment of life.

Toward Today and the Future

The Spaniards admired Inca administration, and many institutions were retained or adapted. But as a people, the Indians never really accepted the Spanish ways. They keep alive many of the old customs, mixing these with Roman Catholic ceremonies.

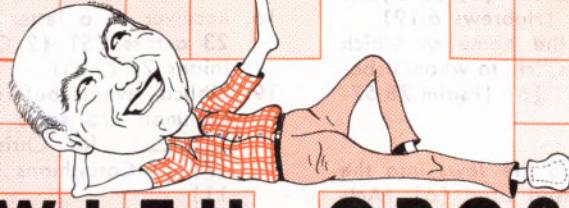
The mountaintop city of Machu Picchu illustrates the Spanish failure to quash the Inca spirit. As late as 1911, American explorer Hiram Bingham discovered it. Between two Andes peaks, 8,000 feet (2,440 m) high and 2,000 feet (610 m) above the Urubamba River, it was never found by the Spanish invaders. Was it built as a military garrison? Or was it a secret refuge for the Virgins of the Sun? The puzzle has never been solved.

However sad the end of the Incas as a people, today there are descendants of these people in Peru, Bolivia, Chile and Ecuador. Jehovah's Witnesses have been preaching the good news of God's kingdom among these people. In and around the "sacred valley" of the Incas, the Urubamba Valley, the Indians have willingly accepted Bible literature. In Cuzco, there are three happy Christian congregations. Some of their number claim descendants from the Incas.

Also, in Bolivia, around Lake Titicaca, there are a number of Christian congregations. These are composed mostly of Aymara Indians, but many Quechua Indians in Bolivia have likewise embraced true Christianity.

Whether they can individually trace their ancestry to the Incas or not, they are looking forward to the time when, in the very near future, God's kingdom will unite persons of all tribes and tongues. Even those long dead will return, to an opportunity for eternal life on earth. (Acts 24:15) Will representatives of the ancient world of the Incas be among that happy throng? There is no doubt about it.—Contributed.

RELAX AND LEARN



WITH CROSSWORDS

MILLIONS of persons regularly do crossword puzzles. Are you one of them? If not, perhaps you have been missing something, for crosswords can help you learn while you relax.

When you endeavor to solve crossword puzzles, you will no doubt find that your vocabulary, as well as your appreciation for the shades of meaning of words, increases. As a result, everyday reading and conversation can become more enjoyable.

Also, many interesting and useful facts will come to light when, on occasion, you have to do research to find the correct answers. This can be absorbing. So working on a crossword, even for a short time, can provide a refreshing change of activity.

Crosswords Through the Centuries

Crosswords are not altogether new. About 100 years ago one was discovered, scratched into a fragment of wall plaster, during the excavations of the 2,000-year-old Roman city of Corinium, in Gloucestershire, England. But their development in England as word puzzles dates to about the middle of the last century. Soon they were printed in children's books and various periodicals.

However, it was not until this popular pastime migrated to America that the puzzle developed into a serious adult diversion. The first modern crossword was pub-

lished on December 21, 1913, in *Fun*, the Sunday supplement of the New York *World*. Although this puzzle was presented as just one of a varied group of mental exercises, it quickly caught the public's fancy.

Since then, crosswords have spread into all countries. They have been compiled in nearly all languages. Today countless millions of people have learned to relax and learn with their favorite crossword.

Types of Crossword Clues

In order to solve a crossword puzzle, you need to know something about the kinds of clues that may be employed. They can be divided under five main group headings.

First of all, there are the straightforward *DIRECT* clues, with no hidden meanings. These clues can sometimes be single-worded, seeking a synonym (a word with a similar meaning). For example, "RAPID" [4] will probably call for the answer "Fast." (Where used, the figure in brackets signifies the number of letters in the answer.) If, however, the single-word clue *itself* has more than one meaning, finding the correct answer will not be so easy. For instance, the clue "FLEET" [6] could suggest either "Nimble" or "Armada." The correct word, of course, is determined by the interlocking letters of



ACROSS

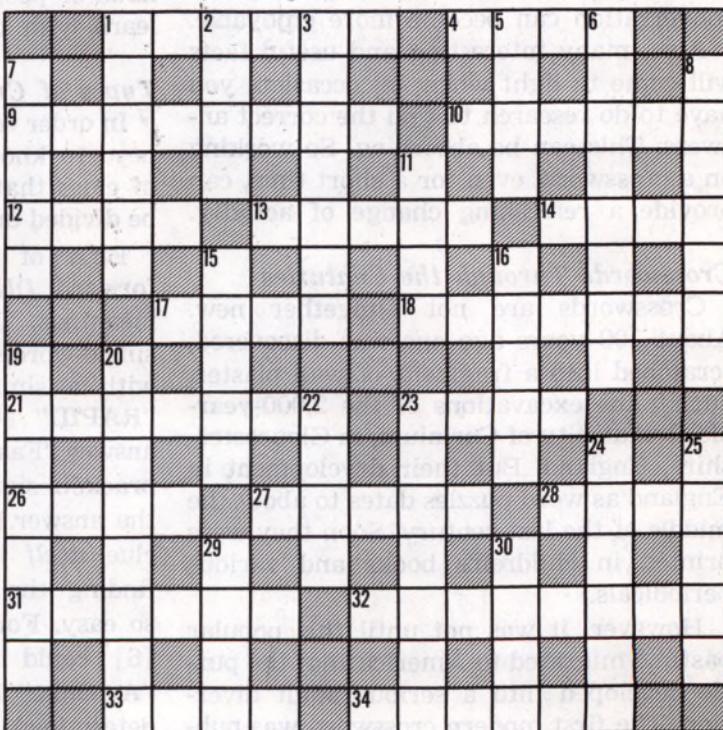
1. Of his four sons, only the firstborn Johanan did not rule as king over Judah [6] (1 Chronicles 3:15)
4. A stopper and starter of the human race [4] (a cryptic clue) (Romans 5: 12-14)
9. Jacob's ninth son [8] (Genesis 49:14, 15)
10. One of the 12 apostles [6] (Luke 6:12-16)
12. The postexilic name of the sixth lunar month of the sacred Jewish calendar [4] (Nehemiah 6:15)
13. A contemporary of the prophets Hosea and 24 down [5] (Jeremiah 26: 17, 18)
14. Nationality of king who ruled Babylon after Belshazzar [4] (Daniel 5: 30, 31)
17. Where Goliath came from [4] (1 Samuel 17:4-10)
18. A kind of interpretation that was not the basis for Scripture prophecy, according to 2 Peter 1: 20 [7]
21. A lie cost his life [7] (Acts 5:1-10)
23. Apostle from the tribe of Benjamin [4] (Philippians 1:1; 3:4-6)
26. Leading number of Ninevites [4] (a cryptic clue)
27. Matthias 'took his office of oversight' [5] (Acts 1:15-26)
28. His other name was Edom [4] (Hebrews 12:12-17)
31. Vineyard owner and victim of a wicked plot by Queen Jezebel [6] (1 Kings 21:1-19)

32. Her name sounds something like a gem, but she was a liar [8] (Acts 5:1)
33. Certain part of "treasures in heaven" [4] (a cryptic clue) (Hebrews 6:19)
34. City the name of which means "He to whom it belongs" [6] (Psalm 78:57- 61)

DOWN

1. He led the Jews into the Promised Land [6] (Acts 7:44, 45)
2. The Pharisees were a prominent religious ___ of Judaism [4] (Acts 15: 1-5)
3. Abednego's Hebrew name [7] (Daniel 1:1-7)
5. Disown, as Peter did to Jesus [4]
6. Portrayed in the book of Esther [8] (Esther 3:1-4)
7. Jesus did it both in heaven and on earth [5]
8. What is "_____ than honey"? [7] (Judges 14: 16-18)
11. Son of Jesse [5] (1 Samuel 16:1-13)
15. Receiver of a letter from 23 across [5] (2 Corinthians 2:12, 13)
19. Biblical events before the Common Era serve as a _____ for Christians [7] (1 Corinthians 10:6- 11)
20. He introduced Paul to Peter [8] (Acts 9:22-29)
22. Benjamite king of Israel [4] (Acts 13:20, 21)
23. Title given to rulers of Egypt [7] (Jeremiah 44: 29, 30)
24. A major Hebrew prophet [6] (Acts 8:26-33)
25. Tribe through which Messiah came [5] (Genesis 49:10)
29. Heavenly body [4]
30. Precious stone concealed centrally by Clopas [4] (a cryptic anagram)

CROSSWORD SOLUTIONS, PAGE 28



the crossword itself. Sometimes an entire phrase is given as a clue, as in: "Popularly known as the 'Sunflower State.'" [6] The answer is "Kansas."

A *PALINDROME*, sometimes called a 'sotadic' after a Thracian, Sotades, of the third century B.C.E., is a word or phrase that can be read the same backward as forward. Some examples are: Mum (or Mom), Dad, Eve, Hannah, Nun (the father of Joshua), Gog, deified, rotator, kayak and level.

Turning of a word back to front, not to form the same word (as in the case of a palindrome), but a completely different word, is known as a *REVERSAL*. Not many words in fact have this strange characteristic, but here are a few: Zeus [Suez]; Enid [Dine]; War [Raw]; Reviled [Deliver]; Flog [Golf]; Repel [Lepre]; Snug [Guns]; Stressed [Desserts]; Smart [Trams]; Yard [Dray]; Stop [Pots].

By rearranging the letters of a word or phrase to form another word or phrase, we have what is termed an *ANAGRAM*. There are thousands of words that in themselves prove to be one-word anagrams. To illustrate: CREATION - Reaction; RANSOM - Romans; TESTAMENT - Statement; EDUCATION - Auctioned, Cautious; TIREDNESS - Residents, Dissenter; ARGENTINE - Tangerine; ONTARIO - Oration; PERSIA - Praise, Aspire.

A unique anagram involving two words is "the classroom," which (by readjusting

the letters of the two words) can be read as "schoolmaster." If a crossword compiler desired to do so, he could clue this word for his readers with what is termed a *CRYPTIC* clue. For instance: "He might well make changes in the classroom. [12]" As you will observe, this cryptic clue guides the solver toward the solution, although the answer ("schoolmaster") does not readily present itself. There are in fact many different kinds of cryptic clues and they are not all easy to solve. Yet, in some English-speaking countries, they are often more popular than the simple, direct type of clue. Cryptic clues can be used with palindromes, anagrams, spelling puns, spoken puns, charades and reversals.

A Bible Crossword

Crosswords can, of course, be slanted toward a particular interest, or compiled with a specific subject in mind. With this article is an example of a Biblical puzzle, specially compiled for *Awake!* You may easily identify some of the words for which clues are given. Others may be more difficult. But in many cases you will be helped by looking up the Bible reference that is cited alongside the clue. When you look up those texts you may find other information that interests you even more than the word that you were seeking. Take time to enjoy it. After all, crosswords are meant to be, not only mentally stimulating, but also instructive and enjoyable.

When Doctors Go on Strike

In a book published in 1979, Dr. Robert S. Mendelsohn draws attention to the fact that, during a 52-day period in 1976 when doctors in Bogotá, Colombia, gave only emergency care, the death rate went down 35 percent. In Los Angeles County there was an 18-percent drop in the death rate that same year when doctors were on strike. And in Israel in 1973 there was a 50-percent drop in the death rate when doctors drastically reduced their daily patient contact for a month. What is the message? Dr. Mendelsohn reasons that most people would be better off with less medical treatment.

CAUGHT IN A TERRORIST BOMB BLAST!

EVEN though a person may be a devout servant of God, he cannot assume that he is going to be miraculously saved from accidents and disasters that occur every day around the world. As an example, take what happened to my little daughter and me on Sunday, July 29, 1979.

While my wife was preparing a meal, I decided to take our four-year-old daughter, Gemma, out to a park in Madrid. But on the way, she asked me to take her to the railway station to see the trains instead. She loves to watch trains, and since the distance was about the same, I agreed.

When we arrived at the station, I bought her ice cream and then we watched the trains arriving and leaving. We strolled around the station and then decided to leave for home. We had walked about 12 yards out of the main hall when my daughter's attention was drawn to an automatic photography booth. With her childish curiosity she poked her head and shoulders into the booth to see more.

At that very moment a violent explosion took place and a stream of glass fragments whistled past me! I felt a powerful force separate me from Gemma and throw me to the floor some yards away. Then I heard a voice shout out, "A bomb has exploded!" I saw a huge dark cloud issuing forth from the hall from which we had just walked. Many must have died, I thought, as I recalled the crowd we had seen there.

Then something very special made me leap up from the floor as if sprung from a trap. My daughter! My Gemma! I rushed to her. She was sitting on the floor next to the photography booth. "Oh, papa, what has happened?" she asked, frightened. The fact that she had been halfway inside the booth had saved her from the worst part of the blast and from the fragments of glass. Thinking to take her to the hospital, I swept her up from the floor and ran toward the car. When I got there, I found that I had lost the keys! I looked for them in vain, blood soaking our clothing.

I could not find the keys, and was getting desperate. Just at that moment, a taxi stopped at our side! I got in immediately and told the driver to get us to the nearest hospital at once.

I placed Gemma on my knees, and when I began to examine her more carefully something terrible struck me. My precious Gemma had a cut on her eyeball! She was looking up at me with a fixed gaze. I tried to console myself, thinking that whatever might happen, Jehovah would undo any injury and make it possible for her to enjoy perfection in his new order here on earth.—Rev. 21:3, 4.

In actual fact, neither Gemma nor I suffered grave consequences from that terrorist attack. Her eye, after a brief operation, recovered, and doctors say that she will not lose its sight. Others, however, were less fortunate. That same day three bombs exploded in different parts of Madrid. Five people were killed and more than 100 were injured.

But why had we been involved? As the Bible clearly states: "Time and accident happened to them all." (Eccl. 9:11, "Rotherham") This experience has taught me to draw nearer to God and to the living hope of his kingdom, which is the only solution for the horrible things that afflict our beautiful earth and the people on it.

CROSSWORD SOLUTIONS

	J	O	S	I	A	H	A	D	A	M	
7	L	O	E	Z			E	O		S	
9	I	S	S	A	C	H	A	R	A	N	D
V		H	T	R		L	Y	D	E		
12	E	L	U	L		M	I	C	A	H	M
D	A		D	A	M		T	C	E	D	T
		17	G	A	T	H	18	P	R	I	V
19	W	20	B	V			T	I	R		
21	A	N	A	N	I	A	S	23	P	A	U
R	R	D	A	H	S			24	I		25
26	N	I	N	E		27	J	U	D	S	A
I	A	S	L	R	O		28	E	S	A	U
31	N	A	B	O	T	H	32	S	A	P	H
G	A	A	A				34	H	I	L	O
	33	S	U	R	E			S	H	I	H

Watching the World



More on Jupiter

◆ The solar system's fastest moving moon was recently discovered accidentally when researchers were examining pictures of Jupiter taken by the Voyager spacecraft. The newly discovered moon is less than 25 miles (40 km) across and circles the huge planet at the outer edge of its newly discovered ring. The rough piece of dark rock moves around Jupiter at about 67,000 miles per hour (108,000 km/hr), about 30 times the speed of Earth's moon.

The Soviet digest *Sputnik* claims that the presence of Jupiter's ring was predicted by the Russian astrophysicist Sergei Vsekhsvyatsky as early as 1960, and was published in the *Proceedings of the Academy of Sciences of the Armenian Republic*. "The existence of active processes—eruptions—in the Jovian system, which is proved by data of cometary astronomy," said the journal, "furnishes all grounds for assuming that ring-shaped cometary meteoric masses resembling the Saturn ring travel around Jupiter."

Israel's "Penguins"

◆ Attempts to apply religious laws in the secular state of Israel have created some unusual schemes to skirt the law by less religious citizens. According to *The Wall Street Journal*, certain Israeli farms

are breeding "penguins" that "weigh up to 600 pounds, have curly tails, roll in mud—and squeal 'oink-oink.'" The *Journal* explains: "In other countries, 'penguins' answering this description are called pigs. But religious tradition proscribes pork for Jews, and so in Israel, pigs must masquerade as 'penguins'—or sometimes as 'ducks.' Restaurants that serve pork describe it as 'white steak.'" The article observes that such substitutes for the word pork "mask a flourishing industry and are just part of the complex arguments and elaborate pretexts that people in Israel . . . offer to cover a widespread ambivalence—or perhaps, a sense of guilt—about pork's rising popularity."

Brazil's Energy Initiative

◆ "Brazil is the only country in the world that has already made official an alternative energy program based on alcohol," says General Motors do Brasil President Joseph Sanchez. In late September, the Brazilian Association of Automobile Manufacturers signed an agreement to build 1.7 million alcohol-powered automobiles during the next five years. Many of Brazil's six million cars already run on a 20-percent blend of alcohol and gasoline. But the goal is to change over to pure alcohol, a renewable energy source.

Alcohol production is already over five times what it was in 1975. Pure alcohol is less than \$1 per gallon, compared to nearly \$2 for regular gasoline and \$3 for high-test. The government claims that alcohol production costs are only 70 cents per gallon.

General Motors in Brazil has developed a "multifuel" engine for its cars that will run on alcohol, gasoline, or a combination. Ford do Brasil also has begun producing an alcohol-powered model. Where does the energy-hungry United States stand on this innovation? "Theoretically, there are no barriers that would prevent us from selling or making our line of alcohol-fueled vehicles and engines in the U.S.," said one auto official. "It's just not in our plans at the moment." Many people wonder why.

Early Learner

◆ A four-year-old Japanese boy has passed an exam that certified his English-language ability as equivalent to an eighth-grade junior high school student. How did he achieve this extraordinary feat, previously equaled by no one younger than a seven-year-old? "Inspired by a book which recommended that parents educate children from babyhood," reports the *Mainichi Daily News*, "Nariaki [Iwashita]'s mother Emi gave him tape-recorded English language courses when he was two years of age and made him learn English lessons on radio from the age of three." According to his mother, the talented tot even uses the dictionary by himself.

Education Shocker

◆ "Nearly one out of every two students dropped out of New York City's public high schools over a four year period ending in 1978," reports the *New York Times*. The information was provided by School Chancellor Frank J. Macchiarola, who said of the 45-percent dropout rate that "there is no

question that our responsibilities to these young people have been grievously unfulfilled." The New York public school system is the largest in the U.S., with 950,000 students.

Unique Bill Collectors

◆ *The Economist* of London reports that an enterprising firm has devised a nearly fool-proof system for collecting what is owed from evasive business debtors. For £20 (\$41), Smelly Tramps Ltd. will send "otherwise respectable chaps, dressed in disgusting clothes and treated with a special stomach-churning chemical" to the recalcitrant debtor's office, says *The Economist*. "The technique is simply to sit around in the victim's office until he signs a cheque." According to one "Smelly," "the receptionists do most of my work for me. One sniff and they go and tell their bosses they can't stand it." The firm claims that about 90 percent of debtors pay up after merely receiving a seven-day advance notice of the coming visit. They also screen requests for their services to see that the money is really owed.

Hot-Water Hazard

◆ Not only does a high setting on your hot-water heater waste energy, but, according to the U.S. Consumer Produce Safety Commission, it can be dangerous. The organization says that every year 3,000 preventable burn injuries are caused by overly hot water from home faucets. Just 15 seconds of exposure to water at 130 degrees F (54 degrees C) can injure skin, while 140-degree-F (60-degree-C) water will do so in three seconds. Yet many heaters are set at 150 degrees (66 degrees C), which can scald almost instantly.

Television Addicts

◆ Two studies, one by the A. C. Nielsen Co., and the other by the Roper Organization, Inc., show that the television viewing habits of

American people have not declined as some had thought recently. The Roper results show an actual increase of about 15 minutes a day since 1976. Nielsen reports that the average household keeps its television on for six hours and 13 minutes a day, with any one member of the household watching for three hours and eight minutes a day, on the average, throughout the entire year.

China's Male Birth Pill

◆ According to a leading American authority on birth control, Chinese scientists have perfected a male contraceptive. They claim that it has no health side effects and does not harm future fertility or offspring. Stanford University professor of chemistry Dr. Carl Djerassi explains that Chinese investigators learned of the substance from what was at first thought to be only folklore. In the Upper Yangtze province of Hebei, it was said that their women could not have children after marriage to local men, while those marrying outside the area were fertile.

Investigation narrowed the phenomenon to gossypol, found in raw cottonseed oil used in the local food. The chemical seems to deactivate or destroy sperm cells. Now Shanghai scientists report that 12,000 men are under study with good results so far. Dr. Djerassi points out that there is an almost limitless supply of gossypol, in view of the 25-million-ton annual world cotton production.

Rising from Ashes

◆ In 1973 a spectacular volcanic eruption practically buried tiny Westmann Island, near Iceland. Almost all of its 5,000 population was evacuated. In the following months slowly advancing lava and a rain of volcanic ash buried hundreds of homes. Now, six years after the eruption, Westmann has been rebuilt. The

huge supply of cinders, mixed with cement, makes good blocks for building material. Heat coming from crevices is being used to produce hot water that is piped into homes for heating. Too, the high wall of cooling lava provides a new windbreak against prevailing gales, and the narrow entrance to the town's harbor, almost choked off by the lava flow, now acts as a breakwater providing a calm harbor for fishermen, who say that they have never seen the fish harvest better. Even the millions of seabirds inhabiting the cliffs seem to have benefited, as the chilled lava created calmer waters and made more ledges and crevices available for nesting.

Pests More Resistant

◆ It is reported that now at least 43 strains of mosquito and 121 strains of housefly are resistant to the traditional pesticides used on them. Similarly, the poison-resistant "super rat" has become so immune to chemicals that a federal agriculture department official in Canada says: "The best rat control is the earliest one ever discovered—good sanitary conditions around human habitation and the old-fashioned trap. The householder who buys a 50 gram box of rat and mice poison—it might kill a couple of mice, but not a rat, anymore. A rat trap is still best."

Sunflower Power

◆ The Minister of Agriculture in South Africa announced that oil made from sunflower seeds has been tested successfully as diesel fuel for tractors and a truck. It was also reported that the oil can power any type diesel engine. After extracting the oil from sunflower seeds, the residue, rich in protein, is said to make fine cattle feed. However, while alternates to petroleum are being sought, it is unlikely that 'sunflower power' will get

very far, considering the huge quantities that would be needed to produce enough oil for the vast number of motor vehicles in existence, even if the price could be made competitive.

Fatal TV Influence

◆ It has been well established that too much television viewing by impressionable young children can produce many undesirable effects, such as slower mental development, poorer health due to a lack of exercise, the inability to interact with other children, irritability and nervousness, and also a tendency to commit more violent acts. One child even committed suicide due to the cancellation by the network of his favorite television show. His parents had allowed

him to have a television set in his own room so that, as the *Sunday Oregonian* related, his "world was wrapped up in the programs he viewed on his own TV set in his bedroom." His father sadly declared regarding too much television viewing: "I was never sure it did influence kids that bad, but now I'm convinced it does."

Valium Abuse

◆ Last year about 45 million prescriptions for Valium, a tranquilizing drug, were filled in the United States alone. However, Dr. Joseph Pursch, who heads a Navy alcohol rehabilitation service in California, said that this widely used drug was addictive and represented a major national health problem. While cautioning that doctors should not pre-

scribe it for everyday stress, he observed: "Classically today, if a woman walks into her doctor's office and says, 'I'm nervous, my husband drinks too much,' the doctor will automatically give her a tranquilizer," such as Valium or Librium. Dr. Pursch noted that he had seen people become addicted to the tranquilizer in only six weeks, adding: "None of these drugs solve our problems. They make people feel better because they make you feel dull and insensitive. But they don't solve anything." Senator Edward M. Kennedy, chairman of a Senate health committee, said that the message was clear: "If you require a daily dose of Valium to get you through each day, you are hooked and should seek help."

