

Awake!

Working at Improving Marriage

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WHY THIS MAGAZINE IS PUBLISHED

Today as never before, what goes on in the rest of the world affects each one of us. "Awake!" reports on the world scene. But it does more for you personally.

It probes beneath the surface and points to the real meaning behind current events. And it gives practical suggestions to help you to cope effectively with the mounting problems of our time.

The scope of subjects covered by "Awake!" makes it a magazine for the entire family. Customs and people in many lands, the marvels of creation, religion, practical sciences and points of human interest all are included in its pages.

In keeping its freedom to bring you the truth, this magazine has no commercial advertisers to please. Also, it stays politically neutral and it does not exalt one race above another.

Most importantly, "Awake!" provides hope, giving you a basis for confidence in the Creator's promise of a new order of lasting peace and true security within our generation.

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Many Choose DIVORCE

-Why?



IN RECENT years a peculiar malady has spread throughout many countries with amazing speed. News sources call it "Divorce Epidemic," "Divorce Fever," "Split Fever."

According to figures for the United States released by the National Center for Health Statistics, between 1965 and 1973 marriages increased by 26 percent. Divorces, however, went up from 470,000 in 1965 to 913,000 in 1973, an increase of 90 percent. Last year the figure climbed to 970,000 divorces. Divorces in the United States were predicted to exceed one million a year by the end of 1975. That is nearly one divorce for every two new marriages.

This "divorce epidemic" is by no means con-

fined to the United States. The Oregon *Journal* noted at the end of 1973 that, according to government figures, divorces in Egypt outstripped marriages by two to one during 1970. Official figures from Russia, according to an Associated Press report, indicate that "one out of every four couples get divorced although it is believed the rate is actually one out of three." People in many other countries, such as Italy, Portugal and Sweden, have obtained legislation that makes getting a divorce easier.

Divorce Now Possible in Portugal

On May 27, 1975, Portugal published a new divorce law. For the first time in nearly thirty-five years, persons married by the Roman Catholic Church can obtain a divorce in Portugal.

Back in 1940 the Portuguese government and the Vatican signed a concordat in which the government agreed to insert in its laws a clause that would prohibit divorce for anyone married by the Catholic Church. The result was Article 1790 of the Civil Code, which declared it impossible to "dissolve by divorce Catholic marriages celebrated since August 1, 1940."

This law prevented individuals married by the Catholic Church from getting a divorce even when their mates committed adultery or took up living sexually with other partners. But rather than keeping couples together, Article 1790 drove thousands of Portuguese married persons to enter consensual arrangements with individuals

other than their marriage mates. Obviously, the results of such unions were undesirable. For one thing, children born from consensual relationships were viewed as illegitimate.

The new divorce law, No. 261/75, abolishes Article 1790 of the Civil Code mentioned above. Accordingly, "Catholic marriage henceforth can be dissolved in the civil courts, in the same terms and on the same basis as a civil marriage can be dissolved."

Some Reasons Why

An important reason why so many marriage partners rush to the divorce courts is the ease with which a marriage can be dissolved. Some parts of the United States now have a "no-fault" arrangement. If a couple insist that their differences are "irreconcilable," their marriage can quickly be dissolved. Since California introduced such a law, the divorce rate there has increased by 25 percent. In Britain liberalizing of divorce laws resulted in more than double the number of marital breakups in just two and a half years.

Portugal's new law is a very liberal decree, granting divorce, not only on the grounds of adultery, but even on the basis of mutual consent by both mates. Article 1778 of Portugal's Civil Code now states that any *de facto* separation that has lasted more than five consecutive years constitutes grounds for divorce. Interesting, too, is Article 1793, which permits conversion of a legal separation into divorce by a simple written request submitted to the court.

Have you noticed, too, how easy it is, in many places, to get married? As a result, thousands of adolescents have rushed into marriage, only to be disillusioned when faced with responsibilities that they were not prepared to undertake. Many seek escape through the divorce courts.

In recent years a changed attitude toward morals is, in many cases, another factor leading to divorce. In times past most people viewed extramarital sexual activity as a violation of the law of God. Today, however, an increasing number of persons have no qualms whatever about committing adultery.

Other frequently cited reasons for divorce are sexual dissatisfaction, unfulfilled emotional needs, constant argument, problems with in-laws and physical abuse. At times divorce can even be related to why persons marry in the first place. Writer Sydney J. Harris observes:

"More young people marry for negative reasons than for positive ones—and negative reasons are incapable of holding any relationship together. . . . More couples, for instance, marry out of than into. They marry out of loneliness, fear, desperation, a bleak home life, a sense of insecurity. They are running away from something rather than to something. Many are trying to escape their own feeling of isolation or alienation."

Are you thinking of getting married soon? Have you analyzed your reasons for taking this step, and are you sure that you are equipped to take on the responsibilities of marriage and parenthood?

Before deciding to marry, it is wise to talk matters over seriously with your prospective mate and to seek the guidance of persons who have had long experience with happy marriage. The Scriptures urge thinking things out in advance, saying: "The plans of the diligent one surely make for advantage, but everyone that is hasty surely heads for want."—Prov. 21:5.

Often, though, divorce springs from a cause that may not be readily apparent. How so?

Breakdown of Communication

The wife of a schoolteacher explains why a void developed in her life:

"[My husband's] world begins and ends at the high school, and while I'm interested in his work and want to share everything with him, I discovered shortly after our second daughter was born that I needed other adult conversation. . . . Oh, sure, when we're making love, I feel very close to [my husband], but the rest of the time I feel that his mind is in a textbook or a classroom and that I'm just an animated decoration around the house."

The problem here was a basic one—lack of communication. This was found at the top of two lists of things that cause marital problems. When communication breaks down, other problems crop up too, such as whether to have children and how to bring them up. And, according to a study by *McCall's* magazine, the key to the confusion over money matters was a disturbing lack of communication between marriage partners when the subject of money was brought up. The principle at Proverbs 15: 22 is certainly true with regard to marriage: "There is a frustrating of plans where there is no confidential talk."

Communication with one's spouse calls for more than mere discussion of household affairs. Think of your own courtship. Did not you and your fiancé or fiancée repeatedly assure each other of your love, appreciation and need of each other? How meaningful that "sweet talk" was then!

But what happens after marriage? In many cases communication of affection between married couples ceases altogether. This can have dire consequences, as noted by an article in the *New York Sunday News*: "It is a common platitude that the unfaithful husband is just oversexed. But this is not true. The cooling off of love and affection at home sends many more men into infidelity than does simple lust." The same may be said for women whose husbands deprive them of affection.

It may be, though, that problems in a marriage stem from an even more basic cause. What is that?

"Everyone Wants More"

Have you noticed the increasing emphasis on self that permeates modern thinking? "Marriages are succumbing," notes Erica Abeel in *New York* magazine, "because only a perfect relationship will do. No one wants to settle or accommodate—everyone wants *more*. The push for 'more' comes largely from psychotherapy. . . . Unfortunately for a marriage, though, 'more' often means more for *me* rather than more for *us*. And a wife may have a very different conception of 'more' than her husband." In agreement with this are comments of Joseph Epstein, author of the book *Divorced in America* (1974):

"Therapy is the new religion and therapy is the self . . . how do *I* come out? The new age of psychology tells you to take care of Number One. All that attention to self is very abrasive in a marriage."

Current emphasis on self deceives many unwary marriage partners into thinking that they are missing out on the ultimate in personal satisfaction. They become "bored" with their responsibilities at work and in the home. Then arises the demand for more satisfaction during sexual relations, for "more fulfillment" in everything. And what happens if these demands are not met?

It is considered courageous to head for the divorce court. "For a lot of people," explains a writer in *Atlantic*, "divorce is a sort of Ph.D., a point of growth and self-analysis and change, a thumbing-of-nose at marriage."

Would divorce be a "point of growth" for you? Or is there, perhaps, a better way to deal with your marital problems?

Working at

IMPROVING MARRIAGE



MARRIAGE is the closest of adult human relations. When a husband and a wife mistreat each other, the wound is often deep and lasting. It may seem that divorce is the only answer.

Surely you will agree, though, that breaking up a marriage is serious. Will divorce really bring greater happiness? Or might it be better to work at improving your marriage?

The Need for a Balanced View

Divorce may seem to be an easy way to escape the unpleasantness of marital problems. But a balanced view is needed, for in many cases divorce has only made matters worse for those involved. *Psychology Today*, of May 1975, contained the

following comments: "In spite of all the cheerful books on creative divorce, no-fault divorce, and better living through divorce, people whose marriages fail are miserable." Especially difficult for divorced persons is loneliness.

"But why should a divorced person be lonely?" you may ask. "Are not casual relationships of couples who live together without serious commitment to each other popular today?" Many, however, cannot conscientiously enter such promiscuous relationships. And even if you chose to live that way, could someone who takes pride in 'not getting involved' fulfill your need to belong to someone? "Marriage serves a deep need for emotional nourishment and commitment," notes a New York marriage counselor. "You don't find that in a casual relationship." Could it be that divorce would intensify, rather than solve, your problems?

But what if a married person engaged in sexual relations with someone other than his mate, perhaps even with a homosexual? This brings up an interesting discussion of divorce found in the Bible.

"On Every Sort of Ground?"

In the first century C.E. there was a controversy among Jewish scholars as to what were acceptable grounds for divorce. The code of Jewish law known as the

Mishnah preserves the following tradition from that time: "The School of Shammai say: A man may not divorce his wife unless he has found unchastity in her . . . And the School of Hillel say: [He may divorce her] even if she spoiled a dish for him . . . R[abbi] Akiba says: Even if he found another fairer than she."*

In view of these differing opinions, which are similar to ones held in modern times, certain Pharisees asked Jesus Christ: "Is it lawful for a man to divorce his wife on every sort of ground?" (Matt. 19:3) Jesus answered:

"Did you not read that he who created them from the beginning made them male and female and said, 'For this reason a man will leave his father and his mother and will stick to his wife, and the two will be one flesh'? . . . Therefore, what God has yoked together let no man put apart. I say to you that whoever divorces his wife, except on the ground of fornication, and marries another commits adultery."—Matt. 19:4-6, 9.

The Greek word *porneia*, which is here translated "fornication," includes adultery, homosexuality and unnatural sex acts. Where such things are involved, therefore, the Scriptures allow for a person to get free from the unfaithful marriage mate and to marry again. But there is no Scriptural obligation to seek a divorce.

But what of a situation where one subjects one's mate to physical abuse, though not committing "fornication"? Here the counsel found at 1 Corinthians 7:10, 11 is

* *The Mishnah*, translated by Herbert Danby, tractate Gittin 9:10.

appropriate: "A wife should not depart from her husband; but if she should actually depart, let her remain unmarried or else make up again with her husband; and a husband should not leave his wife."

Thus, while the Word of God permits divorce on the ground of "fornication" and allows for separation, it does not encourage couples to split up. Rather, the admonition is to work at improving marriage, to "make up again." And the Bible contains simple principles that have helped thousands of couples to improve their marriages. Let us consider some of these principles.

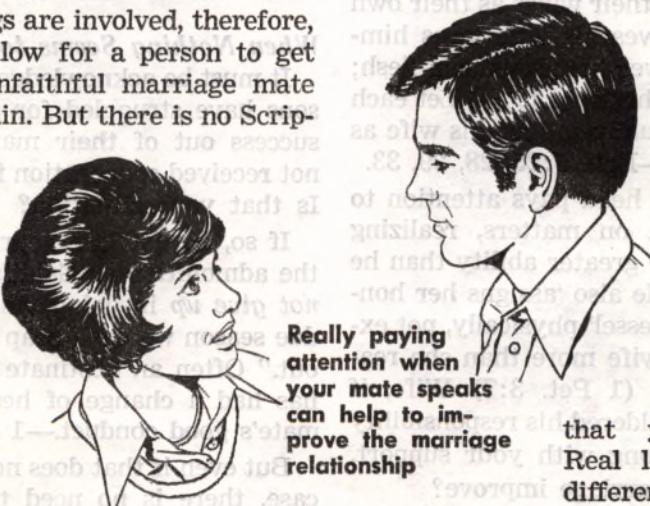
Becoming "One Flesh"

You will recall that Jesus said of husbands and wives: "They are no longer two, but one flesh." (Matt. 19:6) A couple who function as "one" know each other's mind and agree on matters. In other words, they communicate. How can you do this?

Did you know that frequently the Scriptures portray God as "listening" and "paying attention" to people, even to their complaints? (Gen. 21:17; Ex. 2:23-25; Deut. 9:19; Ps. 69:33; Mal. 3:16) Are you a good listener? Do you restate what your mate says, prodding to make sure

Really paying attention when your mate speaks can help to improve the marriage relationship

that you understand? Real listening is much different from just cocking one ear to what is being said and perhaps punctuating the "conversation" with an occasional "uh-huh," while concentrating on something else.



Then there is a need for communicating appreciation and love for each other. The Bible speaks favorably of "expressions of endearment" that passed between a shepherd boy and his beloved Shulammite maiden. (Song of Sol. 1:2, 4; 4:10; 7:12) An occasional warm smile, an affectionate wink, a genuine expression of appreciation such as "You look fine today, dear," can do much to keep a marriage on solid footing, and to rebuild a tottering one too.

The Principle of Loving Headship

Another matter that steers many marriages toward the divorce court is misunderstanding of the respective roles of husband and wife. Think, though, of how much bickering and strife could be avoided by observing the following Bible principle: "Let wives be in subjection to their husbands as to the Lord, because a husband is head of his wife."—Eph. 5:22, 23.

Does that sound like a harsh arrangement? Before answering, consider what the Scriptures further state: "Husbands, continue loving your wives . . . Husbands ought to be loving their wives as their own bodies. He who loves his wife loves himself, for no man ever hated his own flesh; but he feeds and cherishes it . . . Let each one of you individually so love his wife as he does himself."—Eph. 5:25, 28, 29, 33.

A loving family head pays attention to his wife's opinion on matters, realizing that she may have greater ability than he in certain areas. He also 'assigns her honor as the weaker vessel' physically, not expecting from his wife more than she reasonably can give. (1 Pet. 3:7) Wife, if your husband shouldered his responsibility as family head along with your support, would not your marriage improve?

Improving a marriage, however, requires that a husband and wife avoid an attitude that has become popular today. How so?

Who Is More Important?

You have probably noticed the stress on personal satisfaction today. The publication *Physician's World* remarks: "There's a much higher level of expectation on the part of both spouses these days. They learn from the media that they should expect to retain their youth, enjoy higher status, and keep up their sexual appetites. It's a crisis that often ends in divorce."

The Bible, at 1 Corinthians 10:24, urges the very opposite frame of mind: "Let each one keep seeking, not his own advantage, but that of the other person." For example, with regard to sexual relations the Scriptures counsel:

"Let the husband render to his wife her due; but let the wife also do likewise to her husband. The wife does not exercise authority over her own body, but her husband does; likewise, also, the husband does not exercise authority over his own body, but his wife does. Do not be depriving each other of it, except by mutual consent."—1 Cor. 7:3-5.

If you viewed your partner's satisfaction as more important than your own and vice versa, would not your marriage improve?

When Nothing Seems to Work

It must be acknowledged that many persons have struggled for years to make a success out of their marriage, but have not received cooperation from their mates. Is that your situation?

If so, do not lose heart. Take seriously the admonition at Galatians 6:9: "*Let us not give up* in doing what is fine, for in due season we shall reap if we do not tire out." Often an obstinate husband or wife has had a change of heart because of a mate's good conduct.—1 Pet. 3:1, 2.

But even if that does not happen in your case, there is no need to feel that your good efforts are in vain. The apostle Peter wrote: "If someone, because of conscience toward God, bears up under grievous things and suffers unjustly, this is an

agreeable thing." (1 Pet. 2:19) Sticking to Bible principles under pressure brings God's favor, which is the most important thing that Christians can "reap."

Would you like to work at improving

A VISIT WITH THE IGOROTS

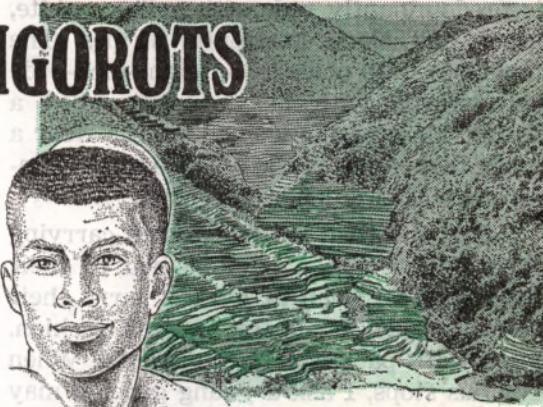
IT IS early afternoon when my wife and I board a comfortable air-conditioned bus and sink into the soft cushioned seats, anticipating our unique vacation. We are on our way to visit the Igorots, who have, to a great extent, resisted the intrusion of foreign influence into their culture. They live in the mountainous provinces of Northern Luzon.

The Igorots are of Malay origin, medium height, strong, with dark skin and straight black hair. The remarkable thing about these people is that over the centuries, with only hand tools and sheer hard work, they have converted an entire valley into the world's most extensively terraced rice gardens.

On the way to visit the Igorots, we ride for five hours through the picturesque central plains of Luzon with its many small towns and rice fields before arriving in Baguio, the summer capital of the Philippines. The cool weather here is a welcome change from the heat and humidity of Manila.

The next morning we are up early so as not to miss the 5:30 bus departure for Banaue. Although we arrive at the station a half hour early, to our disappointment the bus is full. But Filipinos are hospitable, and soon a passenger motions to the others, who begin putting their sleeping little ones on their laps and pushing vegetables aside to make room for us. A

your marriage? Jehovah's witnesses will be happy to conduct a free Bible study with you. They will gladly point out to you the God-inspired principles that can make your marriage a success.



By "Awake!" correspondent
in the Philippines

man with a smiling face extends his hand to help us up.

The bus is shorter than other buses, looking more like a truck and giving the impression that it is built for strength rather than comfort. It is completely open on one side, with wooden benches across its width but quite comfortable despite its Spartan appearance. For shelter from the wind and rain there are canvas shades that can be pulled down.

Although it is only about seventy miles from Baguio to Banaue, our trip takes nine hours because of winding mountain roads that take us through the clouds to elevations of over 7,000 feet. As we start up the mountains, a yellow-orange sunrise colors the sky and we see the morning mist hanging just below the tops of tall pine trees.

Igorot Customs and Way of Life

Nearing the town of Bontoc, we begin observing the Igorot people. The men wear

a brightly colored loin covering called a *wanes*, commonly known as a G-string. They also wear a small, flat-topped, round cap, which serves the same purpose as trouser pockets.

Women wear a skirt of heavy, brightly colored hand-woven cloth called a *tapis*. It is predominantly red, with yellow, white, green and black horizontal stripes. The *tapis* is held in place by an eight-inch-wide belt, woven with heavy cord, called a *wakes*. Most of the women we see wear a white blouse, but in the villages some women go without upper covering.

Along the road we see women carrying their children in a blanket tied to their back or side. Even little girls carry their baby brother or sister in this fashion, along with packages on their head! When our bus stops, I ask a young girl if I may lift her package, and to my surprise it is heavier than my loaded suitcase. Yet she picks it up gracefully and carries it off on her head!

Bontoc is the capital of Mountain Province. Here Igorots live in a modern town in cement houses with electricity and running water. Yet, across the river in the village of Samoki, others live as their forefathers have for hundreds of years.

As we walk along here with our traveling companion and interpreter, we notice that she speaks to everyone she sees. We learn that Igorot people almost always greet persons they meet on the way by mentioning where they are going and, as a gesture of courtesy, invite the greeted one to come along. However, it is not really expected that they will join the one doing the greeting.

We notice that many Igorot women wear tattoos over their entire arms. "It is a sign of beauty," explains our guide, "and is applied at the age of fifteen."

I ask: "How do they know when they are fifteen if no birth records are kept?"

"They estimate the age by the first time she is in love with a young man," is the reply.

Courtship, Marriage and Work

Igorot courtship customs, we learn, are most original and interesting. In the village is an *ulog*, or *ag-gam*, a thatched hut where girls of marriageable age sleep overnight. A young man interested in marriage will approach the girl of his choice in the *ulog* and ask her to marry him. This may be the first time the couple has ever spoken to each other.

When the proposal is accepted the next step is to visit the girl's parents, with a pig as a gift. This pig is slaughtered and the bile examined. If it is acceptable, the couple is engaged. This is followed by a second pig. If its bile is acceptable, the marriage is official. A bile that is not in good condition is believed to be an omen that the marriage will not be blessed. A marriage feast follows with much food and dancing.

The marriage, though, is still subject to the condition of the bile of a third pig, to be sacrificed after the rice harvest. An unacceptable bile annuls the marriage.

The work load in an Igorot family is divided in half, between the husband and the wife. One day the man plows the field while the wife cares for the home. Then the man cares for the home while the wife spends the day in the field planting and cultivating the crops.

The Igorot Home

We resume our bus trip, eventually arriving at our destination, Banaue, where arrangements have been made for us to spend time with a family in their Igorot hut.

It is already dark when we arrive and start our thirty-minute walk to our accom-

modations. With a flashlight, we make our way up roughly chiseled-out steps on the vertical side of a mammoth boulder alongside the road. Once on top, we follow the flashlight beam along the narrow ledge of a twenty-foot-high rice terrace, walking carefully, trying to balance ourselves on a ten-inch-wide path. Soon we come to a narrow but deep gorge. We are cautioned not to look down as we make the four-foot jump. It is incredible to think that this is the easiest way of approach to these people's home!

Finally we come to a little clearing on the mountainside. In the moonlight we see a small hut, perhaps eight feet high and seven feet wide. No sooner do we catch our breath than a smiling, elderly man comes out to invite us in.

Once inside, we realize that there are no windows, only a small hole in the roof above the fire that burns in one corner. The only other source of light is a small oil lamp made from a jam jar and a piece of cord. There are no tables or chairs, only a small mat made of narrow bamboolike sticks called *bilaw*, which is laid on the floor. It serves for sitting, as a dining table, and, as we later discover, our bed.

Since it is still early evening, our host, Pedro Kindajan, tells us how he built this hut during the time of the Japanese occupation, which explains why it is so hard to get to. He points out that the walls are made of *bilaw*, and the thatched roof is a grass called *goloon*. Upon racks above the fire is stacked a supply of firewood that dries as it absorbs the smoke.

Our conversation lasts until about 8:30 p.m., when it is time to go to bed, since the day begins early for the Igorot people. A small thin mattress is rolled out and the mat we are sitting on instantly becomes a bed. Contrary to what one may think, it is very comfortable. Our host and his

family sleep in other huts he has on his property.

A Rewarding Visit

The new day begins before sunrise. While breakfast is being cooked, we wash up outside. Breakfast includes hard-boiled chicken eggs, boiled *camote* (sweet potato), and coffee. I spend part of the morning working with Pedro Kindajan as he cares for his daily chores, which include feeding the ducks, chickens and pigs.

Pedro points to a recently plowed hill across the valley and tells me he is going to plant some *camote* up there, and rice on one of the terraces below. Here for the first time I see the vastness of the Banaue Rice Terraces!

Eastward, northward and westward, as far as the eye can see, are green rice terraces upon green rice terraces. They extend from the base of the mountains clear to the summit. On one mountainside there are over fifty terraces, one on top of another. These terraces cover an area of some 250 square miles and, if put end to end, they would stretch a distance of some 14,000 miles. Of all man's marvelous accomplishments, these terraces are the most impressive I have ever seen. It staggers the imagination to think that they were constructed with simple hand tools and without the aid of modern technology.

Living for several days with the Igorots proved to be a rewarding lesson for my wife and me. Although not having modern inventions to keep us continually busy, we were constantly learning interesting things about the good earth. Never once did we feel bored. While modern technology has helped man to better his lot in certain cases, somehow it has also had the tendency to alienate him from his home, the earth, rather than to make him feel a part of it, as this visit among the Igorots did for us.

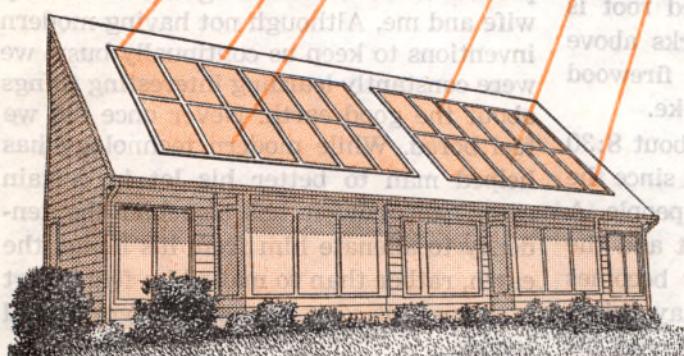
HARNESSING ENERGY FROM THE SUN

HAVE you ever gotten into an automobile that has been closed up and sitting for a long time in the hot sun? The heat can be almost unbearable! No question about it, the sun is certainly a tremendous potential source of energy.

Just think of it, the sun's energy could be used to heat our homes, operate our home appliances, light our cities, drive our vehicles or fill any other power needs we may have. In fact, so much solar energy falls on the earth that if man could harness its flow for just fifteen minutes he would have enough power to supply the world's present needs for a full year!

There are skeptics, however. They believe that sunshine is too diffused to be a practical energy source. Yet, according to J. T. Kane, editor of *Professional Engineer*: "Something on the order of six to ten times the amount of energy required to heat the average building in the U.S. radiates down on the building from the sun each year."

But is harnessing energy from the sun really practical? Can homes today economically utilize this fabulous flow of energy?



A Practical Energy Source?

You may be surprised at the strides that have already been made in harnessing solar energy. The distinguished geologist Dr. M. King Hubbert noted: "Solar energy is not just a theory. We're talking about things that already exist, things we already can do."

What are some of these things? For instance, can the sun be harnessed to supply a home with electricity? In a letter to the editor of the *New York Times*, United States Senator James Abourezk explained: "The technology for converting solar energy into substantial quantities of electricity is available." The senator therefore urged: "The major effort should center on converting solar energy into usable electrical energy."

As yet, though, there is no economical way of doing this. True, there is little question that the sun *could* be harnessed to provide all the electrical needs of one's home. Orbiting spacecraft use the sun's energy to power electrical equipment on board. But producing electricity from sunshine is still too expensive to be practical.

Most authorities believe that the first step in utilizing the sun's energy is not in producing electricity, but in heating water and in heating and cooling buildings. Some solar experts say that it is practical for many homeowners to do this even now. The idea is to capture the sun's heat, store it, and circulate the heat to warm the

house, or to use the heat to run an air-conditioner.

D. Elliot Wilbur, marketing and business director of Arthur D. Little, a firm involved in solar research, notes: "All the materials to install solar heating in buildings are available on the market right now. All that's needed is a company that's willing to put the entire package together and offer it to the general public."

Will companies begin doing this soon? Peter E. Glaser, a vice-president of the Little firm, is optimistic. "Within three to five years," he claims, "you should be able to buy a solar heating system from a Sears catalogue."

Is there sound basis for such optimism? Is a massive solar-heating industry about to develop?

Heightened Interest—Why?

There is no question about the increased interest in solar energy. Last May thousands of persons attended a solar-energy seminar organized by the Solar Energy Industries Association in Washington, D.C. And when the Environmental Information Center of Winter Park, Florida, announced a free booklet, "How to Build a Solar Water Heater," the first 5,000 printing was exhausted in ten days.

Newspapers and magazines carry a flood of stories about solar energy being used to heat swimming pools, homes, schools and other buildings. To mention just a few reports:

- ◆ A Colorado developer is installing a solar-heating system in a new condominium complex.

- ◆ The city of Santa Clara, California, plans to heat and cool a new community center with energy from the sun.

- ◆ Solar heating is being installed in an Atlanta, Georgia, school; already schools near Washington, D.C., Baltimore and Boston are heated by solar energy.

- ◆ In Vermont, sunshine heating is planned for a new colony of vacation and ski homes.

- ◆ Western ranchers are seeking to replace propane driers with solar-heat collectors to dry their grain.

What has prompted this interest in the use of solar energy? Principally, the realization that a change in the present system of generating power is inevitable. It must come. Why? Because the main sources of our energy—oil, natural gas and coal—are limited, with some experts claiming that reserves will run out soon. Already fuel prices have skyrocketed. Furthermore, the use of fossil fuels is beginning to pollute the environment to an objectionable extent.

Future for Solar Energy Brightens

There is much to be said for solar energy. It is abundant and available to all, it does not pollute the environment, and it is free, the only cost being to harness it. It is claimed that, if solar-heating systems were mass produced, they would be more economical than conventional heating systems.

Knowing the merits of solar energy, many scientists are urging its use on a large scale. Dr. Harold I. Zeliger, a New York chemist, went so far as to tell an international environmental conference recently: "It seems obvious that the only long-term solution to the world's energy-pollution problem is the use of solar energy."

This source of energy is also gaining political credibility. For many years the United States government spent only about \$100,000 annually on solar projects. But in 1973 this jumped to \$4 million, then to an estimated \$25 million in 1975, and for 1976 a congressional source foresees more than \$100 million going into solar research and development.

In some countries the sun already is harnessed to provide much of the hot-water needs. In Japan, for example, about 160,000 solar hot-water units were sold in 1974. Israel was said to have some 150,000 of such solar installations, providing sun-heated hot water for about one of every five families. And an estimated 10,000 Australian homes use solar water heaters.

Sunshine could also soon be a significant energy source in the United States. It may surprise you, but well over 80 percent of the average homeowner's energy bill is for hot water and for heating and cooling. And more than a quarter of all the energy consumed in the country goes for these three uses! So if sunshine is harnessed for just these purposes, millions of barrels of oil will be saved daily.

One study last year showed that in the U.S. nearly two hundred solar-heated homes were either completed, under construction or planned. To equip these homes, a solar-hardware industry has emerged; in fact, there are reportedly dozens of solar-equipment makers. But what, you may wonder, is involved in a modern solar-heating system?

How the Sun's Energy Is Harnessed

Since the industry is in its infancy, there is little standardization. But the basic system consists of a solar-energy collector, a storage tank to hold the heat, and a distribution system.

The collector is usually placed on the roof, and is angled to catch the maximum amount of sunlight. The basic principle of the collector is that of a greenhouse. Black absorber panels are covered by glass or plastic. These panels may consist of aluminum sheets painted with a special heat-absorbent black coating. A fluid, commonly water, is piped through the black paneling. In one system, the paneling is corrugated and the corrugations are ribbed with radiator-like pipes.

Sunlight penetrates the glass or plastic, and the black paneling absorbs the trapped heat. Water flowing through the pipes in the paneling may be heated to 200 degrees Fahrenheit and more. This hot water flows to the storage tank, usually in the basement. In a simple hot-water system, however, the tank is often placed on the roof along with the collectors. About a 140-gallon tank will provide a family of four with hot water.

But to fill also heating and cooling needs, a several-thousand-gallon storage tank is required for an average-size U.S. house. One system heats the house in this way: The hot water is siphoned from the tank to heating coils in a duct. Air is then blown through the coils, heating the air, and the hot air is circulated to warm the house.

In order to cool the house, the hot water is routed through an air-conditioner that has been modified to use hot water as a heat source, instead of a gas burner. There is much to be said for solar air-conditioning, because when the sun shines hotter and more air-conditioning is required, the energy is available to operate the system.

But can an efficient solar-heating system now be mass produced? Many scientists think so. Two professors at upstate New York's Syracuse University wrote: "Technology is far enough along to begin applying it on a large scale. Some researchers, engineers and architects, including members of the Syracuse University's Energy Research Council, feel at this time that it is possible to build homes, even in our latitude, that depend entirely on solar energy for heating."

As noted earlier, some solar experts feel that in three to five years such a solar-heating system will be on the market. But Chicago University professor Roland Winston, who also has spent years in solar re-

search, warns: "It's a long way from a handful of solar homes to buying a solar heating plant at Sears."

It will be interesting to observe developments. But, at the same time, what about the prospects for solar-produced electricity?

Solar Energy for Electricity

There are two often-discussed ways to produce electricity from the sun. First, sunlight may be used to heat a liquid that produces steam, which, in turn, drives a turbine engine. It is estimated that a solar-collecting area of five to seven square miles would fuel a steam plant capable of matching the energy output of the largest nuclear power plants. The construction of such a solar electrical plant has been urged by some.

"It appears possible," notes Dr. R. C. Jordan, head of the University of Minnesota's School of Mechanical and Aeronautical Engineering, "that, using today's materials and processes, we can convert 20% of solar energy falling on the Earth at a given point to thermal power and then to usable electric power. This would mean enough power to serve the requirements of this nation for many years to come, and do it at a cost we can afford, making use of unused portions of our land—such as deserts—without causing pollution."

This type of electrical power plant, however, is considered the wrong approach by some. Dr. Erich A. Farber, head of one of the world's largest solar-energy research efforts, says: "You don't build a large power plant in Arizona and send the energy to Florida. Solar energy falls on *your* roof, *your* yard, on the walls of *your* house. It can be economically developed right where you are. You don't need large solar-energy power stations."

It is true, sunlight can be converted to electricity right at home. This can be done by solar cells. These are thin, waferlike chips of silicon that produce an electric current when sunlight strikes their surface. These photovoltaic cells now produce electricity on orbiting spacecraft. And a thousand square feet of these long-life cells attached to the roof could furnish the electricity needs of a modern home. However, solar cells are much too expensive for such use. Yet they need not always be, claims United States Senator James Abourezk.

"There are," he says, "numerous laboratories around the country currently producing photovoltaic cells, which, if produced on a mass basis, could (in the opinion of solar cell engineers) become competitive with other forms of electrical generation. . . . And converting solar energy to electricity will have a far greater impact on many more people than attempting to install solar heating and cooling devices in every home in the United States."

What Future for Solar Energy?

Truly in the sun we have a bountiful, pollution-free source of energy that can be harnessed to serve human needs. How will this be done? When? These are good questions.

Admittedly, there are obstacles. *Machine Design* observes: "That solar energy has been largely ignored can probably be blamed on economics, vested interests, and government bureaucracies that are founded on fossil-fuel systems."

Will such obstacles be overcome? Will there be a real commitment to develop this non-polluting energy source, thus conserving earth's fast-disappearing reserves of oil, natural gas and coal? It will be interesting to watch.



Enjoy Animals - IN THEIR PLACE!

THE young married couple were making their first visit to Berlin, Germany. There were many things to see—the opera house, lakes, museums and historic spots. Yet one of their cherished memories was of something that they saw at the zoo.

In the spacious area for the snow (polar) bears, one bear was bounding into and out of the water as he played with a long-handled shovel. They watched him toss his odd toy up into the air and then dive underwater to retrieve it. There is no doubt that he was having fun. And what a joy it was to watch him!

Have you also not delighted in watching or being with animals? Maybe it was a time when, after much patience on your part, a chipmunk or a squirrel came close enough to pick a nut out of your fingers. Or perhaps you even now smile at the memory of when you stroked a tame deer or watched your new pet kitten chasing after a leaf.

Frankly, almost all of us can find much enjoyment in animals. Oh, yes, maybe you have some doubts about snakes, spiders, bats or something of that sort. And yet,

by and large, most of us find animals to be enjoyable and interesting.

There is a need, however, to keep animals in their relative and proper place if we are to enjoy them fully. An example, admittedly an extreme one, forcefully illustrates this point.

One man was intensely fond of his pet—a five-foot boa constrictor. Though his wife feared it, he insisted on taking the snake to bed with them, sleeping with it coiled around his body. He began bringing the boa to the dinner table, draping it over his shoulders. When, finally, he started to feed it live mice at the table, his wife could stand it no more. She got a divorce. The husband? He proceeded to get another boa constrictor, hoping the two would mate. Obviously he enjoyed animals, at least this kind. But did he enjoy them to a reasonable degree, or in their proper place?

Pets Galore

Unless you live on a farm your enjoyment of animals may be limited mainly to dogs, cats, small birds or fish. Yet, some individuals have pet turtles, hamsters or

certain insects, such as fleas or cockroaches. Really, the list of pets is vast. Japanese children often tame mice. Some Australians make pets of kangaroos. Then what about mongooses, frogs, monkeys and otters? And, incredible as it sounds, some 10,000 Americans own large cats such as lions and leopards as pets!

One book reported recently that there were eight million dogs and cats in West Germany and some 16.5 million in France. The London *Times* (September 9, 1967) said that in a single year the British spent £95,555,304 on food for over 5 million dogs, 4.5 million cats and 3.5 million birds, fish and small animals. As to the United States, *Time* magazine stated:

"The U.S. today is undergoing what can only be described as an animalthusian explosion. . . . The some 100 million dogs and cats in the U.S. reproduce at the rate of 3,000 an hour, [versus] the 415 human babies born each 60 minutes. An estimated 60% of the 70 million American households own pets."

If you, too, enjoy animals—whether you have a pet or not—you may have thought about the various benefits of animals.

Value of Animals

It is quite natural that most humans should find animals enjoyable and important, for Jehovah placed them on earth as a valuable part of our earth's ecology. He knew that man could benefit by having both the "wild" and "domestic" ones sharing together this globe of ours. (Gen. 1: 24) For instance, who of us has not benefited from comfortable and durable clothing made from wool? And could this not have been true even of Adam's family, since his son Abel was "a herder of sheep"? —Gen. 4:2.

But animals, particularly pets, are often valuable in other ways. They may protect a person's property or life. Imagine how many persons have been protected

from being mugged or assaulted because they were walking with a loyal dog that would bark and defend its master. A woman in a nice section of Brooklyn said with an understanding smile that, though many nearby homes had been burglarized, hers had not. Her family has a 100-pound Great Dane whose "woof" would give any would-be robber second thoughts—third and fourth thoughts too! Still, that black-and-white Dane is so mild and affectionate to the family and their friends that they really enjoy him.

If you are a parent, you may have an animal in the home because you feel that a pet can be an important part of a child's life. In this regard the *Encyclopaedia Britannica* says:

"Keeping pets offers the opportunity to teach children the close dependence of privilege on responsibility and also something about sex; the process of mating is soon noticed, followed by such matters as gestation periods and the varied problems involved in the birth and care of young."

If you choose to have a pet for your children's sake, for them to benefit most fully the children must be trained as to the responsibility involved. Would it show any deep care for your children or for a pet to allow it to be neglected once the initial enthusiasm for it waned or once it was no longer "cuddly"? If you teach your children to share in the cleaning, feeding, exercise and discipline of the pet, not just doing it yourself, you will be helping them. And everyone will enjoy the pet more.

Caring for a pet, as well as having its companionship, has aided many retarded children and youths with emotional problems. One reason is that they may respond when they feel that a part of God's living creation is dependent on them. Also, a pet may help them to relate to the "outside world." A London psychology worker told of a disturbed boy who had communication problems and an obsessive fear of

dirt. As the lad became interested in Daisy, a pet dog, he started to communicate better, talking to his parents about the pet. When Daisy had five pups and he could help to care for them, he overcame his obsession about cleanliness.

But, of course, a person does not have to have emotional problems to enjoy a pet's companionship. Have you ever sat quietly in a chair softly caressing a purring cat? Have you ever listened to the melodious singing of a pet canary, or been welcomed home by the happy barks of your dog? Then you know that animals can bring much enjoyment.

Reasonableness Needed

Even persons who enjoy animals very much usually realize that reasonableness is needed in connection with them. If you have a pet, or may get one, you should not overlook some important factors relative to enjoying animals, particularly pets.

Cost certainly is one factor. Simply stated, a pet costs money. Of course, so does attending a soccer match, going to a theater or pursuing a hobby such as oil painting. A reasonable view, then, is to weigh the enjoyment obtained in the light of its cost. *Time* magazine said:

"Americans spend \$2.5 billion a year on commercially prepared pet food alone to feed their pets—more than six times as much as they spend on baby food, and more than enough to nourish the one-third of the world's population that goes hungry. . . . For each dollar spent on pet food, Americans lavish at least as much for pet products and services."

Many persons obtaining a pet do not anticipate a large expense. But costs have a way of mounting. Perhaps special food seems advisable. The pet gets ill and requires treatment. Licenses, cages, leashes and so on may be needed.

When her husband died, Mrs. E. bought a Sealyham terrier. She grew very fond

of it. At the end of a year, however, she calculated how much her pet cost. She had gradually come to feed it special meat and snacks—\$547.50 in one year. Shots and medicines—\$50; grooming and accessories (sprays, collars, toys and so forth) —\$291; kennel care when she traveled—\$126. After giving this example, a book about pets concluded:

"When Mrs. E. found that she had spent, in one year, [\$1,014.50] on her dog, a sum equivalent to the annual income of a migrant worker in California, she decided there was something basically wrong about treating animals, however much one loved them, better than people."

That was her conclusion. Someone else might conclude that for him the benefits of having a pet warrants the cost. In any event, a person ought to weigh the expense and use reasonableness in deciding what is best for him. Priorities differ, as do circumstances. One African said:

"In the general economic climate of undeveloped Africa it is very difficult for people to understand how the higher paid members of the community can spend as much, if not more, money on feeding dogs and cats and horses than the average person spends feeding his whole family."

Thus, in many parts of Africa, dogs are left to scavenge for their food. So, even many dogs that are owned to protect the home are "so painfully thin that you can count their ribs."

Perhaps you feel that you would not want your pet to be in that condition. Then are you prepared to bear the cost of keeping it fed and healthy? More and more persons who have pets find that they are not able to care for them properly. So humane societies are receiving for destruction many emaciated pets. Other people throw animals into the streets or abandon them in a field, even though they may not be able to survive there. That surely is no way to "enjoy" an animal.

A person having a reasonable outlook on enjoying animals also recognizes potential hazards, just as you give thought to any hazards that might be part of a sport or other recreation you are considering. Certainly being bitten is one possible danger with a pet. The Toronto Star said: "Dr. Bruce Feldman [a specialist in pets] points out that in the U.S. about one person in 170 is bitten by dogs annually, 'and at least as many bites are unreported.' Applying these figures to Canada, it is possible that as many as 100,000 Canadians suffered animal bites" in 1974.

But it is not just dogs that present this danger. Dr. Harvey Rhein, a former president of a veterinary association, said:

"As far as I'm concerned, no wild animal makes an acceptable pet. Monkeys are too close to man; they can both pick up and spread human diseases. I'm also opposed to raccoons, skunks and squirrels. Despite claims of some people, who've domesticated these animals, that they make lovable pets, there remains a question of rabies being a latent virus. All these animals are biters; they can do so—fiercely."

Aside from bites, some doctors warn about pet-borne diseases. A newspaper article entitled "New Pet-Induced Ills Challenging Doctors" listed diseases contracted from turtles, hamsters, cats and dogs. A number of these diseases, which range in potential seriousness from flulike symptoms to fatal infections, are spread in the urine and feces of the animals. *Time* magazine commented:

"Each day across the nation, dogs deposit an estimated 4 million tons of feces and 42 million quarts of urine on city streets and parks. . . . More than 100 human infections, from diphtheria to tuberculosis, can be picked up by animals and passed on to their owners. Dog defecation is also rich in toxocara (roundworm), which can cause blindness in children."

Is this to say that you should fear to be around all animals? No, just as the dan-

ger of attack from some human or contracting a disease from such a source does not lead us to shrink from all human association. But these factors about pets ought to be considered by a person in determining in what ways and to what degree he or she will enjoy animals.

Reasonable in Affection

As we have discussed, animals can be valuable in many ways. And there is abundant proof that a pet can be a pleasant, entertaining and devoted companion. Understandably, humans might respond with affection, wanting to be kind and to care for a pet.

Still, the fact that some imperfect humans go to extremes with regard to various pleasures and interests should alert us to the danger of "going overboard" concerning animals.

Did you know that persons have provided their pets with things such as gold bracelets, black lace panties, evening gowns and birthday parties? They have obtained clip-on diapers for their parakeets, false eyelashes for their poodles and sunglasses for vacationing pets. One New York woman has her two dogs picked up each day in a chauffeured limousine; they are slowly driven around a park "so they may have some fresh air and see some green."

Individuals become so emotionally wrapped up with pets that the animals govern human lives. One couple was going to emigrate to Australia. They already had shipped their furniture. But when their Alsatian dog failed a medical exam and was refused entry, they canceled their passage and paid £500 for their furniture to be sent back. They said: "A new life would have been meaningless if we had sacrificed our dog for it. She is part of our marriage."

As with the man and his boa constrictor,

tor, for some persons a pet becomes even more important than marital attachments. One woman kept six Siamese cats, though her husband was allergic to cats and had nearly choked to death a number of times. Even though pregnant with her first child, she was willing to have a divorce rather than live without her cats. It is reported that she "only hoped her child would not inherit the father's allergy."

When affection for animals is not controlled by reasonableness, pets can seem even more important than human life. Hysterical pet owners gathered outside during a fire in one animal hospital. The report is that "women screamed, tore their hair, several fainted, and two tried to break through the cordon, crying that they wanted to die with their darlings."

Yes, reasonableness is needed. Otherwise a person might gradually allow animals to occupy an increasingly important place in his life and affections. As we have seen, this can and does happen. Whereas at first a person might think that it would be pleasant to have a pet around the home, without reasonableness being manifested he could get to the point of spending inordinate amounts of money, time and attention on the pet. Or, even though he is a clean person, he might come to permit himself to be "kissed" by a pet that had recently been licking its sexual and anal areas or eating something unsanitary. Surely extremes need to be guarded against.

Also, a person ought to evaluate his intention in regard to a pet. Is it a matter of settling on the affection or companionship of an animal as a substitute for obtaining such from humans? In his book *Tiere Sind Ganz Anders (Animals Are Quite Different)*, Hans Bauer observed: "It is altogether unreasonable to 'fly to the animal world' because one is 'disappointed' by men." He went on to mention how sad

it is for someone to 'bestow his affections on a dog or a cat in the hope of discovering in an animal what he has failed to find among his own species' when an animal's "whole nature prevents it from ever giving" this to him.

Enjoying Animals in Their Place

Actually, the Bible shows that the exact opposite should be the case. After the Creator made all the forms of animal life, he concluded that what he had made was "very good." (Gen. 1:20-31) Undoubtedly, the first man Adam wholeheartedly agreed with that conclusion. But what place did animals hold in Adam's life?

Since we today can find such pleasure in watching and being near animals, just imagine Adam's joy in the animals and especially at the time when God brought them all to him for naming. (Gen. 2:19, 20) Job later said that animals, besides bringing enjoyment, can be a means of much instruction about the Creator. (Job 12:7-9) Adam must have realized that too. Still, the Bible record says that, having surveyed and enjoyed all the animals, Adam found no full companion or complement among them. Adam was an intelligent human made in God's image, and a similarly endowed creature is what he needed as a complement. As enjoyable, devoted, instructive, amusing or interesting as animals might be, God never purposed that they be a substitute for humans. Do we appreciate this? If so, it will enhance our enjoyment of animals, for we will see them in the proper light and hold them in the place that God purposed for them.

Questions remain, though, about the life and death of animals, such as whether men have the right to kill animals, how we should view the death of an animal, killing such for food, and so forth. We will leave these questions for consideration in a later issue.

WHY THEY RESORT TO TERROR

By "Awake!" correspondent in West Germany

A FAMILIAR face peered down from hundreds of election billboards scattered throughout the city. Peter Lorenz was a candidate for mayor of Berlin, and an issue was security. "More Energetic Action to Ensure Security," urged the billboards. "Berliners are living in danger... crime is on the rise," explained handbills distributed by Lorenz' party.

But then, shortly before election day, that same familiar face could be seen staring blankly from thousands of newspapers throughout the city—this time tired, drugged-looking, robbed of glasses. "Peter Lorenz—Prisoner of the June 2 Movement," boasted the sign placed in front of him—now a victim of the very terror that he was campaigning against! Release came only after the German government gave in to all his captors' demands.

Political terrorism and violence have recently burst forth across the face of the earth, like a deadly plague. In fact, during the very week that Lorenz was held hostage, German newspapers were also reporting other widespread acts of political violence:

Argentina: "Extremists have shot kidnapped American consul John Patrick Egan."

Southern France: "Extensive property damage was caused Sunday night in a series of six bomb attacks."

Kenya: "The once peaceful capital of Nairobi dwells in the shadow of terror. A bomb attack upon an overland bus resulted in 27 dead and 36 injured."

Rome: "In a [blood-spilling] street battle... between young extremists of the right and left, a demonstrator was critically wounded."

Northern Ireland: "Despite the truce two persons were killed last night in Belfast and two others wounded."

Israel: "A terrorist attack on a hotel in Tel Aviv ended early Thursday in a blood bath... fourteen deaths."

All of this in just a week's time! No wonder people were asking, "Where will it all end?" and, "Can nothing be done?" However, German Chancellor Helmut Schmidt warned the Bonn Parliament: "The constitutional state can offer no guarantee of protection against terrorism and anarchistic violence... Even military and police dictatorships are unable to offer absolute protection." In search of solutions, Berlin's daily *Tagesspiegel* asked:

"What has happened to world organizations like the UN or to the international solidarity of the countries involved in not demanding that political murderers, kidnapers and skyjackers be extradited or at least prosecuted? This evil cannot be eradicated as long as it is not possible to get to the root of the trouble."

True, but what is the root of the trouble? Will merely prosecuting terrorists reach and correct it? A look at what is behind their acts of violence reveals that the roots run far deeper.

The Road to Violence

Idealistic young people do not have to be told that something is wrong with the

society around them. The need for change seems evident. But often their voices alone have had little effect upon deeply entrenched systems. The wave of protests that began in the Western industrial nations in the 1950's, for example, was peaceful at first. Many people can still remember the "Ban the Bomb" slogan used by marchers from Aldermaston in England. But the bomb was not banned. Indeed, nuclear stockpiles are now growing faster than ever before.

Similar frustrations in connection with the Vietnam war, civil rights and other issues became a breeding ground for more active forms of protest. Increasingly, the seeming success of revolutionary violence in countries such as China and Cuba strengthened many protesters in their belief that change could come only through violent overthrow of those in power.

"Destroy what is destroying you" became the revolutionary slogan of protesting Berlin students during the 1960's. Since the established state had failed to solve mankind's problems, they reasoned, it would have to be done away with and replaced—by violent means if necessary. The group that kidnapped mayoral candidate Lorenz put it this way: "Words and demands accomplish nothing in changing what is wrong with this country . . . Only violence and weapons can do away with fascism."

Well-known German journalist Fritz René Allemann explains their strategy thus: "Terror—at times employed in the most brutal and crudest way, at times highly refined and shrewdly executed—is to provoke the upper classes and shake the lower classes out of their lethargy and fatalistic resignation by demonstrating to them that governments and rulers are no longer beyond reach."

So it is that the methods of the religious conflict in Northern Ireland and of minority "liberation movements" in other countries have spread to the prosperous countries of the West. "Urban guerrillas" move about in modern jungle-like cities whose huge apartment houses and impersonal streets offer refuge and cover. Lightning-like attacks, including bank robberies, bombings, "executions" of unpopular politicians and kidnapping of prominent personalities to force the release of imprisoned comrades have become the order of the day.

Meantime, another, often overlooked, factor has contributed much to this climate for violence. What is that?

Clerical Involvement

A religious person might, in all honesty, ask why religion has not been more effective in moderating political violence. Is not Christianity opposed to violence and the use of force? Does it not, rather, advocate love of one's neighbor?

Heinrich Albertz, a former mayor of Berlin and an ordained minister of the Evangelical (Lutheran) Church and synod member, gives us an insight as to the answer. During a television interview in late 1974, he admitted: "We ourselves are all guilty that things have so developed, for they are, after all, our sons and daughters." Punctuating his words is the fact that one of the four alleged ringleaders of Germany's notorious Baader-Meinhof terrorist organization, charged with five counts of murder and numerous counts of attempted murder, bank robbery, arson, bombing, forgery and grand larceny, is herself the daughter of an ordained Protestant minister!

True, the majority of Catholic and Protestant clergymen would not openly say

that they advocate violence and terror. But these clergymen's statements are less a measure of their contribution to terrorism than are their actions. They are much like the parent who tells his child not to smoke, but fails to help him to understand thoroughly why, while at the same time he himself continues to smoke—thus encouraging a wrong course. Hence, clergymen may condemn what terrorists are doing, but they themselves have cultivated the soil in which the seeds of terror and violence have taken root and flourished. How so?

Well, consider the methods of religious leaders during the hundreds of years in the Middle Ages when they were strong enough to impose their will upon the state. Do not their blood-spilling crusades, terrifying inquisitions, burning of "heretics," witch-hunts, "conversions" by the sword, and other violent tactics fill the pages of history with proof that they had no aversion to terror and violence when it was to their advantage? Has time changed this underlying acceptance of violence?

The history of two world wars in the heart of Christendom answers No! The record shows that political leaders on both sides of both conflicts could count on the most fervent backing from the churches when sending their young men out to commit violence. Said British Brigadier General Frank P. Crozier: "The Christian Churches are the finest blood-lust creators which we have, and of them we made free use." The ongoing religious terror in Northern Ireland continues to demonstrate this trend to violence among Christendom's people, no matter how many words of peace issue from the mouths of clergymen.

Thus it has been only a short step for some clergymen from supporting the "God and country" violence of war to advocating

violence in support of political causes that certain people believe are "just." Advocating this, Presbyterian University pastor Henry W. Malcolm wrote during the period of radical student revolt against the Vietnam war:

"Those who complain that the clergy ought not to become involved in public issues such as politics, economics, poverty, war and peace do not really understand the history of the ministry. . . . it is they who are the ones who give visible evidence of the most basic teachings of their faith. And this fact does not go unheeded by the student radicals throughout the nation."

Then, showing the extent to which clergymen may become involved in political movements beyond mere words, Malcolm says:

"If it also means that certain action must be taken to change the managed society into a freer society, this too must be tried. All in all, this is why the campus pastor finds himself involved with student radicals."

Reports now abound of clergymen becoming involved in "liberation" movements all over the globe. Many not only verbally advocate the overthrow of what they label as "oppressive" systems, but also actually participate in the violence themselves. Thus they lend an air of moral respectability to violence, as though it were the will of God. Typical are the words of Colombian Catholic priest Camillo Torres, who died some time ago in a hail of soldiers' bullets:

"Revolution means to install a government which feeds the hungry, clothes the naked and instructs the ignorant, in short, one which exercises love . . . For this reason revolution is not only a possibility for Christians, but in fact a duty if it is the only effective means of achieving this love for all."

Can you blame today's youth for being led to believe that the way to achieve a just society is through their own efforts—that they are acting in harmony with the will of God, who does not or cannot

act himself? William F. Starr, a Protestant counselor at Columbia University, noted that it was the view of the late German Protestant theologian Dietrich Bonhoeffer that "the world itself, man himself as he lives in the world, fills needs and solves problems, not God." To this, Starr adds: "As Bonhoeffer's hearers we echo his plea that God must no longer be asked to do what man can do for himself and for one another."

Hence, if man is on his own, then "destroy what is destroying you!" appears to many to be a legitimate solution to their frustration with the failures of human governments. But is it?

The Real Solution

It would be naïve to believe that terrorists are wrong in all of their conclusions. Rather than ignoring reality, they recognize the failure of present systems to deal with political, economic, racial and environmental problems. But is their solution—the violent replacement of present systems with another of their own choosing—the right one? Or would it be merely trading one form of oppression by imperfect humans for another?

On the other hand, what do those who advocate working "within the system" have to show for their efforts? As much as they talk and work, is the world's state of affairs even headed in the right direction? The existence of more and more impoverished, unemployed, illiterate, hungry and homeless people—and now, a greater number of refugees—all answer emphatically No!

Have not imperfect humans thoroughly demonstrated that they cannot produce the global changes necessary to bring peace and happiness to all of mankind? But what if the change were to come from outside the realm of humans, from a source

that has power to overthrow all the feuding, selfish, nationalistic rulers of today and replace them with a universal government that will truly serve the interests of mankind as a whole? Bible prophecy answers that this is just what the Creator of the human family purposed to do:

"In the days of those kings the God of heaven will set up a kingdom [government] 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.

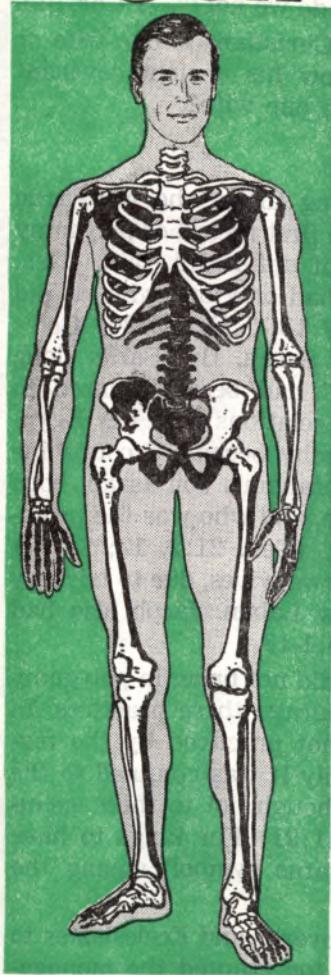
The Bible also shows that a completely new order will then prevail, based on the peace, equality and brotherly love so much desired by many who want to change the present system.—See 2 Peter 3:13; Revelation 21:1-5.

Religious clergymen have failed to make this purpose of God clear to the youth of today. Therefore they must bear a heavy load of responsibility for misleading radicals into the ways of terror and violence. They could have done much to prevent the rise of terrorism if only they had fulfilled their mission to instruct young people in the grand purposes of God, rather than directing them toward man-made solutions. Those who do not take God's purposes into account can only reap what the ancient Israelite people did when they also did not consider God:

"There was a hoping for peace, but no good came; and for a time of healing, and, look! terror!"—Jer. 14:19.

Is this not just what is happening today? Therefore, why not wisely abandon the limited solutions devised by imperfect humans in favor of the world-embracing solution that God will bring in through his kingdom? Only then will the longed-for time of peace, justice and righteousness that is the sincere dream even of many terrorists become a reality.

THINK ABOUT YOUR



BONES

HAVE you given thought to what a masterpiece the bones within your body are?

They reflect the design and handiwork of the Creator himself. One of the world's most eminent bio-engineers, Dr. John Lenihan, in discussing the requirements that are needed for bones in the human body, recently said:

"The bones, which are the basic elements in the skeleton, must be rigid but not too rigid, since it is better for them to yield to a certain extent under stress than to break. The forces likely to act on a bone, or on any structural material, are of two main kinds, compression and tension. Carry a heavy suitcase and the bones of the arm are put under tension. Jump down stairs and the bones of the leg are put under compression."

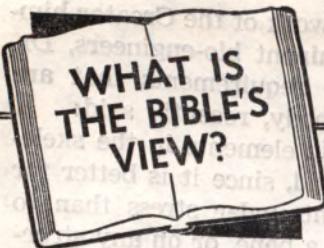
But how about your bones? Do they meet the requirements? Dr. Lenihan continued:

"Some materials, such as stone, are strong in compression but weak in tension. Wood, on the other hand, is strong in tension but weak in compression, particularly when the force is applied in the direction of the grain. It is of course possible to find materials such as steel which are quite strong both in compression and in tension—but the specification for bone is more exacting, because it has to be very light; the two hundred-odd bones in the skeleton have a total weight of only about 20 lbs. The combination of lightness and strength is achieved in the skeleton by methods which engineers are only now beginning to appreciate and to imitate."

Is that all that there is to be said for your bones? No; much more can be appreciated about their unique design and abilities. Dr. Lenihan added: "Another important requirement for bone is that it must maintain its function while growing. When a pair of shoes become too small we throw them away and buy another pair. The bones of the foot are, however, growing steadily for eighteen or twenty years and doing their normal work throughout this time."

That is not all. "Thirdly a bone must be self-healing. If a shaft in an engine breaks, we replace it and fit a new one. But if a bone breaks we expect it to mend itself and, after a while, to be as good as new. Finally, the bones must be able to articulate, that is, to fit freely one against another so that force and power may be transmitted. The joints where bones come together must be self-lubricating."

After describing the necessary specification for our internal structural system, Dr. Lenihan concluded: "The material which answers to this difficult specification is made in a way which no engineer, chemist or materials scientist would ever have invented." But God did. He gave us bones.—Job 10:11.



Why Was Polygamy Allowed?

WHEN Jesus Christ was on earth he pronounced God's standard with regard to marriage. Asked about a man's divorcing his wife "on every sort of ground," Jesus replied: "Did you not read that he who created them from the beginning made them male and female and said, 'For this reason a man will leave his father and his mother and will stick to his wife, and the two will be one flesh'? So that they are no longer two, but one flesh. Therefore, what God has yoked together let no man put apart."—Matt. 19:3-6.

Consequently, a true Christian cannot be a polygamist. The apostle Paul, following Jesus' lead, wrote: "Let each man have his own wife and each woman have her own husband." (1 Cor. 7:2) He also counseled that "a wife should not depart from her husband; but if she should actually depart, let her remain unmarried or else make up again with her husband; and a husband should not leave his wife." (1 Cor. 7:10, 11) Paul also wrote about himself and his

fellow Christians who were taking the lead as examples: "We have authority to lead about a sister as a wife [not, 'sisters as wives'], even as the rest of the apostles and the Lord's brothers and Cephas, do we not?"—1 Cor. 9:5.

So, since God's standard for Christians is *one* wife or *one* husband, why did God allow his ancient covenant people Israel to have more than one wife?

A Brief History of Polygamy

Polygamy did not start among those who were true worshipers of Jehovah God. The first record of polygamy is with Lamech, a descendant of unfaithful Cain. (Gen. 4:19) But God's servant Noah had only one wife, as did each of his three sons. (Gen. 7:13; 1 Pet. 3:20) God's friend Abraham had one wife, Sarah. But Sarah, long barren, knowing that a "seed" had been promised to Abraham, induced him to have relations with her Egyptian slave girl Hagar, who thereby became a concubine to Abraham. (Gen. 16:1-4) Abraham's son Isaac, born later to Sarah through a miracle, and who was the promised "seed," had only one wife. (Gen. 21:2, 12; 24:67) Isaac's son Jacob, however, had two wives, due to trickery on the part of his father-in-law Laban. Jacob also had concubines.—Gen. 29:21-29; 30:1-13.

So when the Law came in, it did not bring in polygamy or concubinage, nor did it encourage these practices. In fact, polygamy was evidently not practiced by the majority in ancient Israel; primarily it was confined to the more prominent and wealthy, though not to these exclusively. (Judg. 8:30; 2 Chron. 11:21) For kings to have many wives was sort of a 'status symbol' among the nations.—2 Sam. 16:20-22.

References in the Psalms, Proverbs and Ecclesiastes to happy marriages seem to take for granted the monogamous state. "Rejoice with the wife of your youth," says Proverbs 5:18. And Ecclesiastes 9:9 counsels: "See life with the wife whom you love all the days of your vain life that He has given you under the sun." (Compare Psalm 128; Proverbs 18:22; 31:10-31.) Furthermore, the danger of polygamy was stressed in God's counsel to kings: "He [the king] should also not multiply wives for

himself, that his heart may not turn aside." (Deut. 17:17) King Solomon ignored this warning, to his sorrow.—1 Ki. 11:4-6.

The Mosaic Law Discouraged Polygamy, Protected Women

The provisions of the Law were such as would actually discourage polygamy. Each time a man had intercourse with his wife he was unclean, in a religious sense, for a day. (Lev. 15:16, 17) Thus, relations with several wives would make it more frequently inconvenient for the Hebrew, for uncleanness prevented the man from engaging in a number of activities. (Lev. 7:20, 21; 1 Sam. 21:3-5; 2 Sam. 11:11) Also, the laws of inheritance required that the man give the double inheritance to his firstborn son, even if he was the son of the less-loved wife. (Deut. 21:15-17) In these respects, polygamy was undesirable.

Even though polygamy was tolerated, the Law protected women, giving Hebrew women a far higher and more respected status than was the case in other nations. If a man seduced a virgin girl who was not engaged, he was required to marry her, and he could never divorce her. (Deut. 22: 28, 29; Ex. 22:16, 17) If a man falsely accused his wife of not being a virgin at the time of her marriage, he could never divorce her. (Deut. 22:13-21) Also, the polygamist man was required to provide fully for and give the marriage due to the less-loved wife. (Ex. 21:10, 11) A foreign virgin girl captured in warfare as a slave could be taken as wife by the soldier capturing her. But if he later sent her away because of her not being pleasing to him, he could not sell her to another person. He had to let her go free according to her pleasure. (Deut. 21:10-14) Allowing soldiers to marry captured virgins was a blessing to these girls, because they would otherwise have no homes or friends.

Furthermore, a man could not divorce

his wife without due cause. He had to write her a formal certificate of divorce. This would require a public authority as witness and would very likely be done before the city elders, to give it official authorization. This provision, along with the further law that the man could not remarry this wife if she married another man who later died or divorced her, was a deterrent to hasty or frivolous divorces. (Deut. 24:1-4) Moreover, the certificate of divorce provided legal evidence of the woman's remarriageability. It protected her from the charge of prostitution or adultery.—Compare Deuteronomy 22:13-21.

"The Appointed Time to Set Things Straight"

So God, although regulating polygamy, did not see fit to abolish the custom among his people at that time, just as he did not abolish, yet regulated, slavery. It was not yet time for him to restore *all* things to his perfect standard. The writer of the Bible book of Hebrews quotes Jesus as saying, in effect, about the many animal sacrifices offered by the Jews: "Sacrifice and offering you [God] did not want, but you prepared a body for me." (Heb. 10:5) The Law's arrangement for animal sacrifices was a mere shadow, not the reality. Jesus Christ gave the truly satisfactory sacrifice to remove sins. The writer speaks about sacrifices and other features of the Law and says: "They were legal requirements pertaining to the flesh and were imposed until *the appointed time to set things straight*."—Heb. 9:10.

Therefore, with Jesus Christ's appearance on earth the time came to begin to set things straight. He made clear God's standard of monogamy, and of Scriptural divorce only on grounds of adultery. (Matt. 19:9) When asked by the Pharisees why God did not enforce this standard upon

Israel, Jesus replied: "Moses, out of regard for your hardheartedness, made the concession to you of divorcing your wives, but such has not been the case from the beginning."—Matt. 19:7, 8.

In harmony with what Jesus said, Jeremiah the prophet had long before foretold a change in God's dealings when the new covenant, based on Christ's sacrifice, would come in. Jeremiah said: "'Look! There are days coming,' is the utterance of Jehovah, 'and I will conclude with the house of Israel and with the house of Judah a new covenant; . . . I will put my law within them, and in their heart I shall write it.'"—Jer. 31:31-33; Heb. 10:16-18.

The new covenant would soften the hardheartedness of those taken into it. Faith in Christ's sacrifice would remove consciousness of sins, which animal sacrifices could never do. The law of this covenant would not be something merely written on stone tablets. It would be written on hearts. It would give them clean consciences, which the Law did not do.—Heb. 9:13, 14.

Moreover, we see that even with Christ's coming, not *all* things were set straight at once. After teaching his disciples for three and a half years, Jesus said to them on the night before his death: "I have many things yet to say to you, but you are not able to bear them at present." (John 16:12) Humans, in striving to meet God's perfect standard, cannot make all the necessary changes in their lives at once, all in

one short period of time. The early Hebrew Christians, for example, had much to learn about getting free from many of the Jewish traditions. They had to be set straight by the apostle Paul on the matter of observing certain days as holier than others, on eating, on circumcision, and so forth. God lovingly and considerately did not see fit to load all these changes on them at once.—Rom. chap. 14; Acts 15:1-29.

Such was the case with polygamy. Because of the Jews' "hardheartedness" God did not force a change. It was not the important thing at that point. As the apostle Paul explains: "Why, then, the Law? It was added to make transgressions manifest, until the seed should arrive to whom the promise had been made." "However, before the faith arrived, we were being guarded under law, being delivered up together into custody, looking to the faith that was destined to be revealed. Consequently the Law has become our tutor leading to Christ, . . . But now that the faith has arrived, we are no longer under a tutor." (Gal. 3:19, 23-25) God made the Jews a separate nation by giving them the Law. But even in his regulating of polygamy there was separateness, for none of the nations had such laws on the matter.

Jehovah's considerateness and his progressive leading of his people are evident in this matter of polygamy. (Ps. 103:10, 14) In bringing mankind up out of the low sink of sin, God has his time to accomplish certain features of his purpose. Why, it will take the thousand-year reign of his Son Jesus Christ to wipe out *all* the effects of sin and to bring mankind to the perfect state, where they are no longer hindered by any vestiges of "hardheartedness" and so can live up to every aspect of God's perfect standard. How thankful we should be for his patience and undeserved kindness!—Rom. 8:21; 11:33-36.

IN THE NEXT ISSUE

- **How Secure Is "Social Security"?**
- **Who Is the Head of Your House?**
- **Is It Safe to Take Medicine?**



Confirmation of Atrocities

◆ In recent months, Jehovah's witnesses in the African country of Malawi have suffered horrible atrocities. These atrocities are not just a charge fabricated by Jehovah's witnesses. Not only have they been verified by thousands of eyewitnesses among them, but, in addition, the respected London *Observer* of December 7 states: "Detailed evidence of this new reign of terror . . . is also independently corroborated by reports coming out of the villages." The *Observer* notes that Jehovah's witnesses are "willing to pay taxes or to buy identification documents of citizenship, but they refuse to subscribe to any political party." When they have refused because of their Bible-based neutral stand, then organized mob violence, condoned and promoted by the rulers, has resulted in shocking brutality, even depravity.

Banda: 'Deal with Devil'

◆ The *Official Associated Press Almanac* for 1974, on page 575, reports concerning Malawi's president H. K. Banda: "He has said that 'I would do business with the Devil himself to help Malawian development.'" His actions in fomenting atrocities against peaceful Christians, Jehovah's witnesses, indicate he is doing just that. Also, in a contradic-

tory statement published in the *Malawi News*, Banda, an elder in the Presbyterian Church, declared that he 'believes in the freedom of worship,' but then stated that this does not apply to Jehovah's witnesses.

Benefit of Parental Tutoring

◆ Parents who teach their children individually, before they start school, play a role in producing children with above-average intelligence. A University of Washington psychologist, after making a study of the matter, said that the most "gifted" or "genius-level" children are raised by parents who carry on a one-to-one tutoring situation with the child in the years before it begins school.

Thievery a "Growth Industry"

◆ In addition to more customers stealing from business concerns, employee theft is growing at such a rate that one publication called it a "growth Industry." In the United States thefts against business, especially by employees, totaled about \$24 billion in 1975. That figure was more than the combined sales of the nation's three largest retail chain stores. A security expert stated that honesty is fast disappearing, and added: "Twenty years ago I figured that three out of every 10 employes

were stealing from the company. Today I figure it's seven out of 10."

"Smoked" Children

◆ The smoking of tobacco products has already been extensively documented as being harmful, causing or aggravating a number of diseases such as lung cancer. Now, evidence from the London School of Hygiene and Tropical Medicine implicates cigarettes as the cause of pneumonia and bronchitis in young children whose parents smoke. A five-year study indicated that the children of parents who smoked had bronchitis or pneumonia during their first year of life twice as often as did the children of parents who did not smoke.

Living Off the Garbage

◆ Two Norwegian school students spent a vacation on bicycles, traveling several hundred miles. Their food? They took along their fishing rods, intending to live off the fish they caught and wild berries, buying only strict essentials. By "just a coincidence," they say, when they threw some rubbish into a "dustbin" (garbage can) along a roadside, they discovered in it four eggs, four ham sandwiches, a tin of mackerel, two liters of skimmed milk, three different cheeses, one kilo of strawberries, an unopened can of fruit salad, a tube of sausage, a jar of jam and several loaves of bread. The boys then decided to see how many trash cans could provide food on their vacation. To their amazement they sustained themselves well, even collecting deposits on empty bottles to buy themselves other things. They made it a practice not to touch food that was not well wrapped, and submitted everything "to a strict smelling-test." Many Norwegians have been shocked to see how much good food is wasted.

Japan's Consumer Goods Boom

◆ A household survey in Japan shows that in the past five years, carpets, hot-water systems, air-conditioners, golf clubs and color television sets had the largest sales. Rugs are replacing the traditional straw mats. In spite of the recent recession, it is reported that 99 percent of all Japanese homes have refrigerators; 98 percent have washing machines; 91 percent, color TV's; 89 percent, sewing machines, and 84 percent, telephones. Although Japan is one of the world's leading automobile manufacturers, car density is relatively low, with less than 50 percent of households owning one.

Paddling Schoolchildren

◆ The United States Supreme Court has decided that school-teachers may discipline their students—including the use of a paddling, or spanking. This may be done even over the objections of the parents. It let stand a lower court's decision that turned down a mother's complaint over the paddling of her son, a sixth grader. This court's ruling declared corporal punishment an acceptable form of discipline, provided it was not used for slight offenses or without prior warning.

Troubled Banks

◆ American banks are beset with a broad array of problems. Most of them are linked to bad loans, aggravated by the recession of the last two years. The New York Times states that the nation's banks "find themselves in their most troublesome period since the Depression. Not for 35 years has the near-term outlook appeared so glum." One estimate is that bad-loan write-offs for 1975 exceeded \$3 billion. Another worry is the loans—about \$25 billion—made to less-developed countries, a problem said to be more serious than all the other loan problems combined.

New Sailing Ship

◆ For twenty years a Hamburg, Germany, engineer has been applying modern technology to the square-rigged sailing ships of olden times. Now, a prototype of a highly automated, six-masted sailing ship is to be built. It is a 17,000-ton bulk-cargo freighter, twice the size of the largest freighter ever under sail. Under favorable wind conditions, the ship is designed to make twenty knots. But in case of calm, an auxiliary engine will keep the ship moving. The enormous amount of diesel fuel saved, plus the very small crew required, is thought to make the ship relatively inexpensive to operate.

Evidence of Babylonian Siege

◆ Archaeologists digging in the walled old city of Jerusalem claim to have unearthed evidence of its siege by ancient Babylon under King Nebuchadnezzar about 2,500 years ago. Four arrowheads of two different types, believed to be from that period, were found amid charred wood and ash near an Israelite defensive tower.

Unruly Musicians

◆ The publication *L'Espresso* of Rome noted that famous orchestra conductors and soloists "come to Italy these days with increasing reluctance." The heart of the problem, it claimed, was the deportation of orchestras. One prominent conductor stated: "The last time I conducted in Italy I spent half my time and energy asking the orchestra to be quiet. I felt more like a nursery school teacher than a conductor. It was a degrading and humiliating experience. How could we rehearse . . . when the musicians discussed soccer during the slightest pause?" Similarly, a composer wrote of occasions "when we could hear transistor radios broadcasting soccer games right in the con-

cert hall." However, a musician responded that, while there was some truth to such charges, still, "when we play an instrument we put our souls into it."

Benefit of Energy Crisis

◆ Statistics reveal that traffic deaths were lower in California during the winter of 1974-75 because of reduced speeds due to the energy crisis. Some researchers also believe less driving and less automobile pollution were factors in lower heart-attack and pollution death rates. Heart attacks in San Francisco decreased by 16.7 percent in that period, and a medical authority listed as a factor "less stress from driving." Deaths due to pulmonary diseases decreased by 33 percent.

Pregnant Children

◆ A wave of teen-age pregnancies is sweeping the United States, authorities told a convention of the Planned Parenthood Federation. One official called it "a new epidemic." Doctors report that now girls 9, 10 and 11 years of age regularly ask for birth-control devices. It was also observed that "a lot of them are brought in by their parents."

Fewer U.S. Catholic

Missionaries

◆ The U.S. Catholic Mission Council released statistics that show a drop in the number of U.S. Catholic missionaries serving abroad. This is the seventh consecutive year the number has declined. The number of these missionaries in 1975 was 7,148, down 2,507 (26 percent) from the 1968 peak of 9,655.

High French Bankruptcies

◆ The recent recession took its toll in Europe as well as in America. During the first half of 1975, bankruptcies in Europe's Common Market countries zoomed. In total numbers, France had the most,

followed by Great Britain, West Germany and Italy.

Deeper into Debt

◆ Many city, state and federal governments are going deeper into debt to try to combat recessions and create jobs. For instance, while cities such as New York experience grave difficulties paying their bills and then resort to ever more borrowing, the same has been true of the federal government. *U.S. News & World Report* states: "Washington has shown a budget surplus only once in the last 16 years—in 1969. Outlays have soared more than 300 per cent in that period, income only 225 per cent. Result is a cumulative deficit of nearly 240 billion dollars" in that sixteen-year period. Now the total government debt nears 600 billion dollars, with the deficits of the last and present fiscal years expected to be by far the

largest in the country's peace-time history.

Begging "Pays"

◆ A beggar in Düsseldorf, West Germany, was arrested for begging under false pretenses. He was found to have nearly \$30,000 in a savings account, police said. He admitted that for years he told people he was "just out of prison" and did not have enough money.

Costly Calls

◆ Saudi Arabian students attending Ohio's Findlay College regularly call home—halfway around the world. But since telephone credit cards are issued only to phone subscribers and Arabian operators refuse to accept collect calls, the students have had to punch at least 40 coins into pay phones for a 3-minute call (\$9.65). An average 20-minute chat takes

more than 250 coins (\$64.05), and an hour's talking fills the phone's collection box. Former monthly coin pickups from the clogged boxes obviously had to be stepped up.

Having Fewer Children

◆ Of all American women under 30 who have been married, one third (33 percent) are now childless. Only one fourth (24 percent) were childless in 1970, and in 1960 only a fifth (20 percent) were. The trend toward postponing child-birth, and having fewer children when families are started, has caused the nation's birth rate to drop sharply. The high cost of living due to inflation, the exploding world population, more women committed to careers instead of families, the desire to be free from caring for children, legal abortion, and world problems are listed as being responsible.

