Awake!

AUGUST 22, 1985

HIROSHIMA

Has Its Lesson Been Lost?

Awake!®

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Feature Articles

Forty years ago this month, the bombing of Hiroshima ushered in the nuclear age. Yet, today many have forgotten what was learned from what happened then. To help readers recall, this issue of *Awake!* relates remembrances by survivors of that holocaust. And it explores the question, Has the lesson of Hiroshima been lost?

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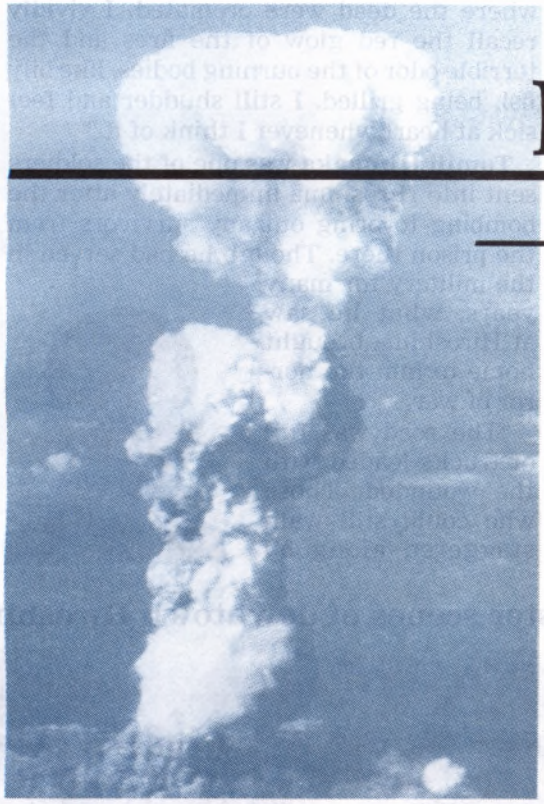


U.S. Air Force photo

HIROSHIMA —*An Unforgettable Experience*

By "Awake!" correspondent in Japan

FOR years it has been the same. At exactly 8:15 a.m., a hush falls over the throng of people gathered at the Peace Park, Hiroshima. They are observing a one-minute silence in memory of that catastrophic moment of 40 years ago. On August 6, 1945, an atom bomb exploded over Hiroshima, Japan. In one flash, the city was devastated, and some 80,000 people lost their lives. Three days later another atom bomb destroyed the city of Nagasaki, killing about 73,000 people.

From all over the world, thousands regularly come to commemorate this fateful event. This year, besides the usual parades, prayers, memorial services, and so on, there are special events such as the World Conference of Mayors for Peace Through Inter-City Solidarity—a meeting of the mayors of scores of cities in Japan and around the world.

Clearly, Japan wants the world to remember the lesson of her harrowing past.

Survivors Tell Their Stories

Reams of paper have been used to record the heartrending stories of those who survived the bombs. Though most survivors are now in their middle age, they still have vivid memories of "that day." Here are their stories as told to an *Awake!* correspondent.

Nobuyo Fukushima, who remembers well her experience of the bombing in Hiroshima, relates: "I was cleaning the stairs in my house when suddenly a bright flash and a terrible blast knocked me unconscious. When I came to, I could hear my mother screaming for help. The house was in a shambles. I thought an earthquake had struck. When we made our way out of the house over to the riverbank, I saw many children and their parents with clothes burned to tatters and fused to their skin. I could not understand why they were so badly burned.

"When we got to the hospital, it was packed with people. The heads and faces of many of them were covered with blood, while others had burned flesh dangling in strips. The hair on some of them, being singed by the heat, was standing on end. Others, with fragments of wood and glass blasted into their body, were groaning deeply. Their faces were so bloated that it was difficult to tell one from the other. They all seemed to be pleading for water, but by the time water was brought to them, many were no longer breathing. My mother also died three months later from the effects of the bomb.

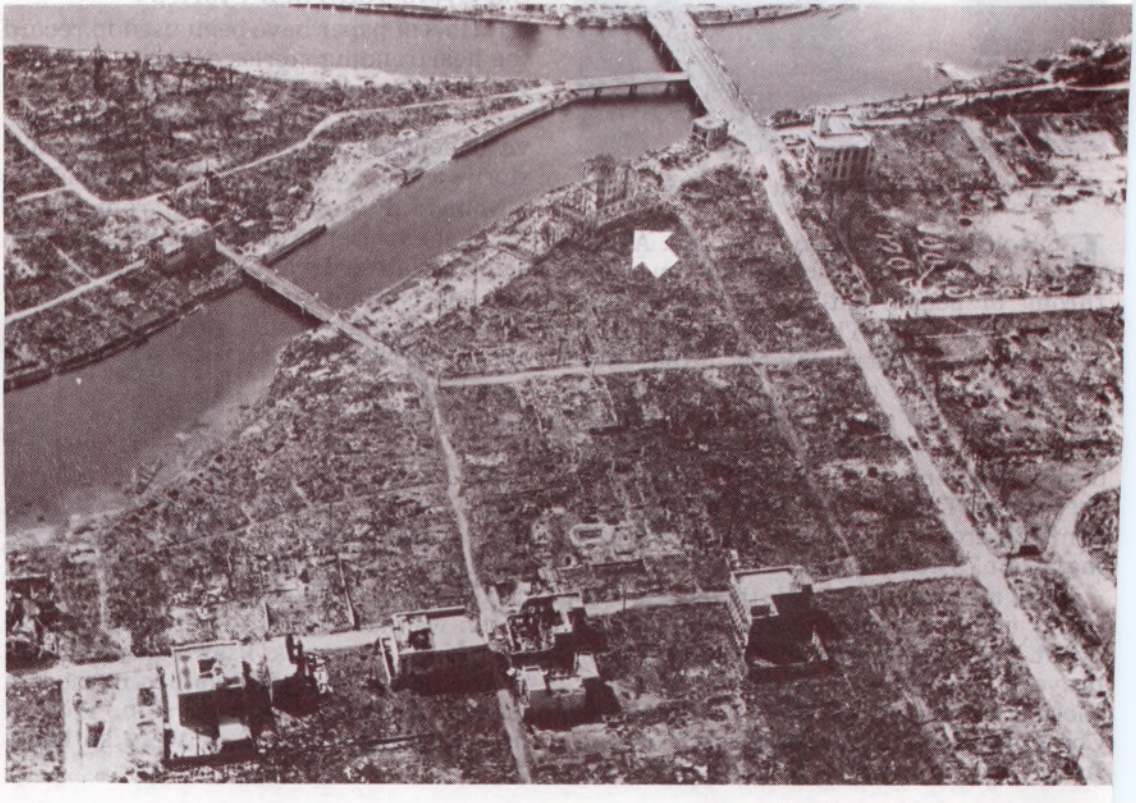
"The city had become one large, burned-out field, with only an occasional crumbling concrete wall still standing in the ashes. Nightly, there were fires on the riverbank where the dead were cremated. I vividly recall the red glow of the fires and the terrible odor of the burning bodies, like oily fish being grilled. I still shudder and feel sick at heart whenever I think of it."

Tomiji Hironaka was one of the soldiers sent into Hiroshima immediately after the bombing to bring out any survivors from the prison there. Though he had served in the military for many years, what he saw at Hiroshima brought home to him the horror of war.

"The road was full of trucks loaded with the wounded. Those who could still walk staggered along by

Disaster scenes of downtown Hiroshim

U.S. Air Force photo



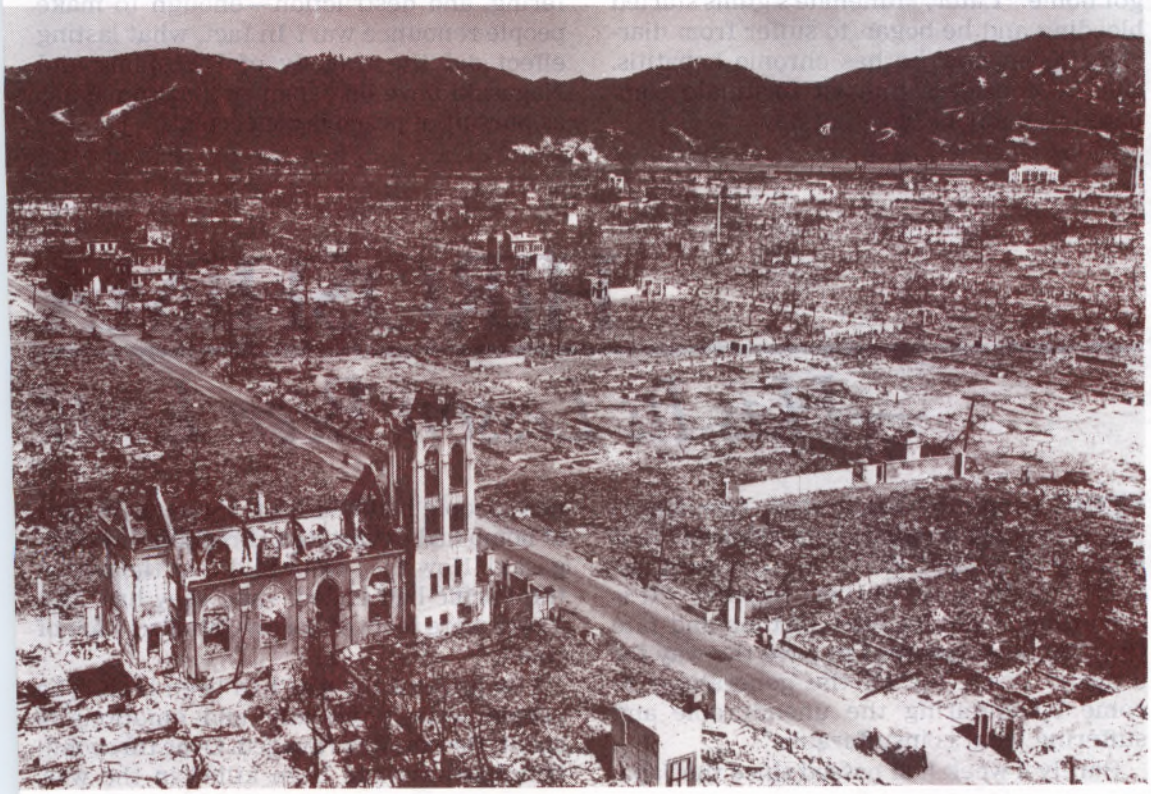
the roadside. Many were almost naked, except where patches of clothes had been burned into their skin. Piles of corpses, blistering red, were everywhere. The riverbanks were crowded with people trying to soothe the pain of their burns. Among them, I saw a mother, covered with red burns, holding her baby, also badly burned, trying pitifully to nurse it. I remember well the intense feeling I had then. 'I hate war! I hate war!' Yet, I had shared in killing, and I thought, 'What kind of conscience do I have?' I was keenly aware of my bloodguilt."

Munehide Yanagi, a 14-year-old boy at the time, miraculously survived the bombing in Nagasaki. He was only 3,200 feet (980 m) from where the bomb exploded. "I was part of the student mobilization arrangement assigned to construct air-raid shelters," he explains. "As we were working, I heard the drone of a large airplane that sounded something like a loud roar. Just as I was wondering if it was an American plane, I heard the cry: *'Tekki!'* ['Enemy plane!'] We threw down the things we had been carrying and ran with all our might for the shelter.

"At the instant I reached the concrete barrier in front of the air-raid shelter, there was an immense flash of blue-white light and a tremendous blast that threw me unconscious to the back of the shelter. The

aken after atom-bomb blast

U.S. Army/Courtesy of The Japan Peace Museum



next thing I knew was being awakened by the agonizing cries of *'Aigo! Aigo!'* [a Korean expression denoting deep emotion]. The cries were coming from someone with a face blackened by smoke and who was so severely burned that it was hard to tell if the person was male or female.

"Outside, it was like an inferno. I saw one of my schoolmates who was badly burned. His clothes had been shredded, and his skin was coming off. A girl who had been working with me had collapsed on the road—her lower legs were gone and she was pleading for water. I did not know where to get water but tried as best I could to encourage her.

"The fire ravaged the city. I saw burned-out telephone poles crashing into the streets, a train burning on the tracks, and a horse thrown into convulsions by the heat. The raging fire forced me to wade into the river. I was hot and frightened. Somehow I got home." Later, Munehide's gums started bleeding and he began to suffer from diarrhea. Even now he has chronic hepatitis. But he considers himself fortunate compared to many he saw that day.

A Lesson for All

The experience of the atom-bombings indeed left a deep scar on the minds and consciences of many people. Even those who have seen the aftereffects of the bombing have been deeply impressed with the horror and destructiveness of war.

Today, 40 years after the event, tension between the nations is increasing, and stockpiles of nuclear weapons are growing. Fear of a third world war and a nuclear holocaust looms ever so real. Understandably, more and more people throughout the world are urging all nations and peoples to remember the tragedy of Hiroshima and Nagasaki as a lesson for all. The 40th anniversary at Hiroshima is but one of many such expressions.

But have any of these efforts really brought the world closer to true peace? Are the horrors of nuclear war—the pain, suffering, and destruction—enough to make people renounce war? In fact, what lasting effect did the tragedy of Hiroshima and Nagasaki have on Japan as a nation as far as pursuit of peace is concerned?

HIROSHIMA

—Has Its Lesson Been Lost?

THE people of Japan were weeping as they stood around their radio sets that midday of August 15, 1945. They were listening to the voice of their emperor: "It is according to the dictates of time and fate that We have resolved to pave the way for a grand peace for all the generations to come by enduring the unendurable and suffering what is insufferable."

Barely a week had passed since the Japanese people had heard that some new type of bomb had devastated Hiroshima and Nagasaki. Now they were told that the war in the Pacific had ended—and they had lost. There were tears of sorrow but also tears of relief.

The price of the war had been high. The people were physically and emotionally spent, the country ravaged. Over three million Japanese had been killed in the war,

Modern-day Hiroshima, the lower left area of picture showing the same section of city as seen on page 4 (from the opposite direction)

and 15 million had been left homeless. Ninety major cities had repeatedly been bombed, with two and a half million buildings and homes destroyed. Tokyo had been reduced to heaps of ashes and rubble, its population decimated by the war. That was the tragedy of defeat—a dark moment in the history of the land of the rising sun.

Efforts to Renounce War

Amid the ruins of defeat, it is easy to see that war is futile, a waste of human lives and precious commodities. Thus, immediately following the war, Japan rewrote its constitution along democratic lines and renounced war forever. Article 9 of the new constitution reads:

"Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes.

"In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized."

In view of that bold and noble statement, it would appear that Japan had learned a lesson. The Japanese people do indeed have a strong aversion to war and a fear, in particular, of nuclear war. The country has adopted a three-point policy toward nuclear weapons: not to make, possess, or allow them in the country. Each year, hundreds of thousands of Japanese gather throughout the country to stage protests against nuclear weapons. Nuclear weapons should never be used again—anywhere!

An Amazing Comeback—To What?

Now, 40 years after Hiroshima, the contrast of the glittering affluence of modern-day Japan is almost unbelievable. Without the burden of military spending, Japan has been able to devote its resources to rebuilding itself. Today, beautiful air-conditioned homes and skyscrapers stand where once everything was in ruins. Shiny automo-

biles, well-dressed people, and expensive restaurants belie the poverty and suffering of the immediate postwar years. Stores are well stocked with all kinds of luxury items, and factories are pouring out endless goods for home use and for export. Yes, Japan has become one of the most prosperous nations in the world.

But what has the material prosperity brought? Has the economic security dimmed the memory of Hiroshima and Nagasaki in people's minds? Has the abhorrence of war been removed along with the scars of war?

Recent polls indicate that though the Japanese people still want their government to remain non-nuclear, there is a pessimism about the future. Half of those polled fear that there could be a nuclear war. Also, an increasing number think that Japan will go nuclear within the next ten years. Why do people fear this? Well, consider the progressive developments.

Following the war, a National Police Reserve of 70,000 armed infantry soldiers was set up. Later, this force was expanded to 250,000 men, grouped into a small army, navy, and air force, and given the name *jieitai,* or Self Defense Forces. Still, Japan's military budget was a mere 1 percent of its gross national product. But with tensions mounting in many parts of the world, Japan is being prodded to enlarge her defense capability and spending.

Recently, Prime Minister Nakasone declared his intent to make Japan "a big aircraft carrier." In spite of public sentiments, plans are being made to increase defense spending by as much as 7 percent in 1985. And, according to *The Daily Yomiuri,* Japan has committed itself to a five-year (1986-1990) plan of systematic and continuous defense buildup—in manpower, warships, submarines, and aircraft.

Changes are seen not only in government policies but also in people's attitude toward war. In 1970, one of the most traumatic political outbursts in Japan's history was touched off when the postwar military security treaty—whereby the United States would provide protection in time of crisis in exchange for establishment of military bases in Japan—was renewed. Yet, when the treaty was renewed again in 1980, there was not a single major protest.

The fact is that today in Japan few people under 50 remember the war, or care to talk about it. Some see in the careful rewriting of schoolchildren's textbooks the effort to remove altogether important facts that led to that terrible war. As waves gradually remove footprints on a sandy beach, changing world conditions affect people's political views. Major questions in the minds of many are, Just what would Japan do in some future emergency? Would Japan go to war again if the reason appeared right? Has the lesson of Hiroshima been lost?

What course the nation as a whole will take, only time will tell. But many individuals in Japan have already made a personal decision in this regard. One such individual was in the Hiroshima prison at the very time the atom bomb exploded, but he survived that holocaust in one of the prison's deep cells. He was not in prison because of any criminal offense. Rather, he was conscientiously opposed to participating in war. He was one of Jehovah's Witnesses.

Through a study of the Bible, he had accepted God's viewpoint of wars waged by men and learned that God's Kingdom is the only means by which true peace can be achieved. (See Isaiah 2:4; Daniel 2:44.) For preaching this message out of love for God and for neighbors, he was put in that prison.

Today, there are over 100,000 like him in Japan, busily preaching "this good news of the kingdom." (Matthew 24:14) Many of them have personally gone through the horrors of Hiroshima and Nagasaki. How a particular one of them allowed that extraordinary experience to move her to search for something better—and what she found—is a story that we invite you to read.

My Wounds of Hiroshima Are Gone!

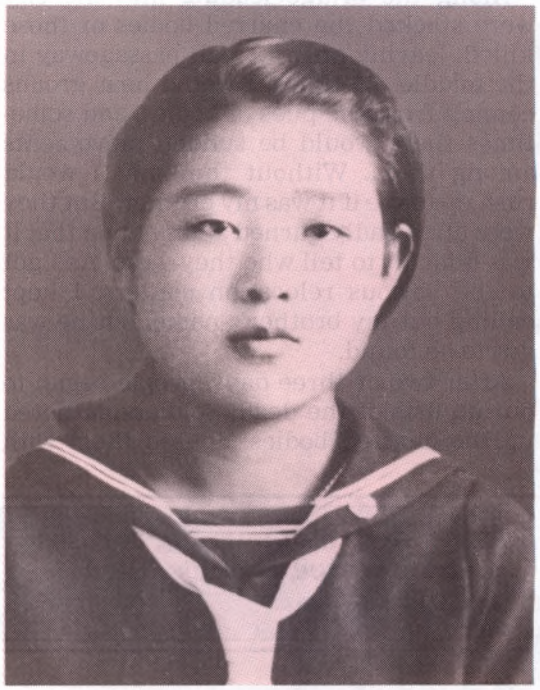
As told by Taeko Enomoto of Hiroshima City

A STRANGER came to our house with a scorched and tattered shirt that had been worn by a schoolboy. All that was left was the collar with the upper part of the shirt. But still clearly readable was the name Miyakawa Shiro across the chest. It was my brother's shirt.

On the morning of August 6, 1945, I went to work as usual. As a typical 19-year-old girl, I was caught up in the patriotic fever gripping the country at the time and had joined the Women's Volunteer Corps. My brother, still a schoolboy, had gone into the center of the city to work. My father had died fighting in Manchuria. That left my mother at home alone.

Early that morning, enemy warplanes had been spotted near Hiroshima, and there had been air-raid alerts. As we finished our military drill and were just about to go inside the building, a tremendous explosion rocked the area. Everything before my eyes went completely red. The heat from the blast gave me the sensation that I had fallen into a hot furnace—at that moment I went unconscious.

As soon as I revived, I thought of my family. Though it was broad daylight, the pall from the bomb's fallout made things look eerie. Soon, a black, sooty rain began to fall, and it kept up for about two hours. What I saw on my way home was frightening. There were people with blood spurting from their neck and others with hands over their eyes and blood streaming between



Taeko at 19 in 1945

their fingers. I saw many with their whole body burned red. Some had the skin from their hands and arms hanging from their fingertips, while others were dragging along the skin that had peeled off their legs. There were people with hair frizzled and standing on end.

When I reached home, I found the whole neighborhood, including our house, flattened by the blast. How happy I was to find

my mother still alive, though badly cut by flying glass fragments! But what had happened to my brother? We decided to wait until dawn the next day before going into the city to look for him.

The Search for My Brother

Seeing the city the next day made me realize that it had not been just another air raid. This bomb was something big. The devastation was unprecedented.

Along the bridge leading into the city were stacked the charred bodies of those killed, leaving only a small passageway in the middle. At times, I would hear groans coming from the piles of bodies, and sometimes there would be sudden movements among them. Without thinking, I would rush up to see if it was my brother. But they were all so badly burned and swollen that it was difficult to tell who they were. As I got to the various relocation centers, I kept calling out my brother's name, but he was not to be found.

After two or three days, people began to put up lists of the dead. Soldiers gathered up the charred bodies, doused them with gasoline, and burned them. Very little could be done for the injured and the dying. They were given some water and a daily ration of one rice ball. There were no medical supplies or treatment for them.

The stench of burning corpses and untreated wounds filled the air

Within days, people's hair began to fall out. Flies and maggots were seen crawling over the open wounds of those too weak to clean them off. The stench of burning corpses and untreated wounds filled the air. Soon, seemingly for no reason, those who were healthy enough to take care of the wounded began to die off, one by one. Evidently they had succumbed to the effects of radiation. I, too, began to experience diarrhea, weakness, and nervous disorders.

After searching for about two months, I finally learned what had happened to my brother. The stranger that I mentioned before came to see us. He explained that he had given water to a boy who was badly burned and blinded by the bomb. When my brother finally died, this person was kind enough to remove the shirt and to take the trouble to look us up and bring it to us.

Every time I closed my eyes, I saw the victims, with vacant stares on their faces

The effect all of this had on me, a 19-year-old girl, was traumatic. I lost the strength to think about anything. I also lost all sense of fear. I just cried and cried. Every time I closed my eyes, I saw the victims, with vacant stares on their faces, wandering about aimlessly in the gloom. How I hated war! I hated the Americans for dropping the bomb, and I hated the Japanese leaders for letting the war go that far.

I Found Something Better

During the next ten years I got married and eventually had three children. But my heart continued to burn with hatred. Though I wanted desperately to get rid of these feelings, I wondered how I could ever forget all of this.

I tried various religious groups and joined the *Seicho No Ie* religion, as they appeared to be the most loving and generous. But they were not able to give me satisfying answers. When I asked why my brother had to die, they would only say: "People who do good things die young. It was his fate."

Then we moved to Tokyo. One day, one of Jehovah's Witnesses called at my door. He

talked about God's Kingdom and read to me something from the Bible about people beating their swords into plowshares. (Isaiah 2:4) I was impressed with his kindness and his knowledge of the Bible and accepted two magazines from him. I learned later that he, too, had lost most of his family in the Hiroshima bombing. He arranged for a woman to visit me.

The lady came many times, always smiling and warm. But I was still bitter and cold. Although I listened to her message from the Bible, I just could not believe that there could be any saving power in a religion from a country that had brought the misery of that day in Hiroshima. But there was something about her that made me continue to listen.

"Do you think," I asked her one day, "that it is possible for someone like me, who has a heart full of hate, to become a warmhearted person like you?"

"Yes, it is possible," she answered confidently. "I became the way I am after studying the Bible," she explained.

So I began a systematic study of the Bible using a booklet entitled *"Look! I Am Making All Things New."* From the study I learned that the actions of the so-called Christian nations did not conform to the Christianity taught in the Bible, and that Christendom, too, faces God's judgment.

My enthusiasm grew as I continued to study. I came to understand why God has permitted wickedness till now and that only God's Kingdom has the power to save mankind from suffering. I was also deeply moved by the love Jesus Christ showed in giving up his life on a torture stake for the benefit of all people. Little by little the Bible's message changed my feelings, and soon the hatred in my heart was gone. In its place I felt a warm love toward others and a strong desire to tell them about God's Kingdom.

I began to attend the meetings at the Kingdom Hall regularly and I was baptized in June 1964. For seven years thereafter, I

Taeko with her daughter

was able to be a pioneer (a full-time minister of Jehovah's Witnesses) and enjoyed the privilege of helping 12 people to get to know the only true God, Jehovah.

Putting My Experience to Use

My husband and I have returned to Hiroshima now. Here I still meet many people like me who remember the bomb. Having experienced the same thing as they did, I am able to help them to see that the only true hope for a world with no more war lies in the Bible's message of the coming Kingdom rule by Christ Jesus.

Today in Hiroshima the scars of the bombing are mostly gone. But more importantly, I have been able to get rid of the wounds and hatred I carried in my heart for so many years and have replaced them with hope and love. I now long for the time when God will resurrect all those whom he holds dear in his memory. My desire is to share the incomparable joy that I now have with the many who died 40 years ago in Hiroshima—including my dear young brother.

The "Way of the Gods" —*Where Did It Lead Japan?*

By "Awake!" correspondent in Japan

IT HAS no known founder. It has no creed or official doctrine. It has no churches or church-type services. It has no religious hierarchy, nor does it even have a religious book comparable to the Bible. Yet it is a way of life that has been handed down from generation to generation and is professed today by some 78 million Japanese people. It is called Shintoism.

The origin of Shinto is shrouded in mythology. 'In the beginning,' says legend, the god Izanagi and the goddess Izanami had sexual relations. This gave birth not only to the trees, mountains, and land but also to some eight million other gods and goddesses! Jimmu Tennō, the first emperor of Japan, is thought to be a direct descendant of one of these goddesses—Amaterasu Ō Mikami, the sun-goddess. Respect for and veneration of these gods is the basis of Shinto, which means "way of the gods."

But where has the "way of the gods" led Japan? Has it proved adequate to the spiritual needs of the people there?

The Path of Superstition and Fear

Shintoism has no precise definition of what happens at death. (There is no equivalent of Christendom's "heaven" and "hell.") Although death is considered "a curse, a tragedy, a mishap," the prevailing thought is that the dead one becomes a spirit that can bestow blessings on a family. A Shinto book says: "The men of this world continue to live after death, and continue to receive the blessings of the gods, that is, the spirits of heaven and earth. We also, with our incorporeal souls, live together this life of man."

What effect has belief in departed spirits had upon the Japanese? Rather than filling them with hope, it has given birth to numerous superstitious practices. For example, if there is a misfortune in a family of Shinto believers, they may believe that they are not giving sufficient attention to some deceased ancestors. If a new home or car is purchased, exorcism rituals are often performed to clean out 'wicked spirits.' Before construction work is begun, a Shinto priest will come with a portable altar to invoke the protection of ancestral gods.

So rather than enlighten its adherents, Shinto has simply led its believers down the path of superstition and fear, the same path blazed by the religions of ancient Babylon. In his book *The Religion of Babylonia and Assyria,* Morris Jastrow showed that to the ancient Babylonians "death was a passage to another kind of life." Too, Shintoism gives prominence to the relationship between the sun-goddess and her male human offspring. There are rituals in which the emperor goes to Ise where the sun-goddess is enshrined and makes "reports" to her. This is reminiscent of the relationship between Nimrod and his mother, the so-called Semiramis. And whereas Semiramis was supposedly the daughter of the fish goddess, Atargatis, the mother of Emperor Jimmu was the daughter of the "Sea King."

'A Spiritual Weapon'

In times past, Shintoism did much to help the Japanese adhere to high moral standards. It strengthened family ties. And by instilling a powerful respect for the emper-

or as both sovereign and religious leader, it helped maintain national unity. However, it almost led to national ruin.

Says the *Encyclopædia Britannica* (1966 edition): "Beginning with the Chinese-Japanese War (1894-95), Japan followed an expansionist policy, and from that time until the period of World War II Shintō was manipulated by the militarists and jingoistic nationalists as the spiritual weapon for mobilizing the nation to guard the prosperity of the throne." Shinto thus became a tool that helped lead Japan into the second world war.

After Japan's utter defeat in the war, the conquering Allies ordered the disbanding of State Shinto. Deprived of government support or control, Shinto shrines thus became independent. The emperor himself shocked the nation by renouncing claims of divinity, saying: "The ties between Us and Our people have always stood upon mutual trust and affection. They do not depend upon mere legends and myths. They are not predicated upon the false conception that the emperor is divine and that the Japanese people are superior to other races and are fated to rule the world."

This, though, was not the end of Shintoism. The disbanded State Shinto reorganized into an organization called Jinja Honcho (The Association of Shinto Shrines). It represents some 80,000 Shinto shrines. Although the president of this association is supposed to be the head of the Shinto religion, in actuality the emperor is still recognized by most as occupying this position.

Shinto, however, has not proved itself effective in coping with modern problems. It has not solved the enormous problem of discrimination against second and third generation Koreans and Chinese who were born and raised in Japan. Shinto does not have any guidelines to offer to deter juvenile delinquency and solve school-violence problems. It does not voice any stand regarding the abortions and permissive sex that are now sweeping Japan. The Jinja Honcho's "Outline of Shinto Teachings" gives a reason for this, saying: "Shinto is not restricted by definite scriptures or dogmas."

Shinto also fails to give its adherents a hope for the future. It is concerned only with "today." No wonder then that thousands of Japanese have made a break with Shinto and have taken an interest in the Bible. Unlike Shinto, the Bible explains why man is on the earth and what the future holds. The Bible gives moral guidance and provides a solid basis for faith—not mythological stories. So while Shinto may be the "way of the gods," the Bible says that "though there are those who are called 'gods,' whether in heaven or on earth, just as there are many 'gods' and many 'lords,' there is actually to us one God the Father." (1 Corinthians 8:5, 6) Jehovah's Witnesses are helping thousands in Japan to know this "one God" by name.

A Shinto shrine where people come to pray

Nutrition for Good Health

Malnutrition is a word often associated with famine and starvation, especially in developing countries. But another form of malnutrition, or poor nutrition, is prevalent in countries such as the United States and Canada and in areas with a similar diet. This is malnutrition caused by poor selection of foods and excessive food consumption.

To gain a better understanding of the nutritional problems representative of the industrialized nations, *Awake!* spoke with nutritionist Nilda Tirado, New York City coordinator for the Expanded Food Nutrition Education Program, which is administered by Cornell University, Cooperative Extension. The Cooperative Extension programs throughout the United States provide free information and help to the public in the proper selection and use of foods to maintain good health. The following are Nilda Tirado's answers to questions of an *Awake!* representative.

What would you say are the major nutritionally related health problems in industrialized countries?

The most common nutrition-related problem would be dental caries, or tooth decay, affecting every age group. Obesity, or excessive weight, would be next, and iron-deficiency anemia, which is still prevalent in women, adolescents, and infants. However, of great concern are several chronic diseases or conditions, such as high blood pressure, arteriosclerosis, and gastrointestinal problems, which are directly related to overconsumption of high-calorie foods, fat, and salt, as well as insufficient fiber consumption. These conditions are all related to the many changes in our life-style and in our eating and food-preparation patterns.

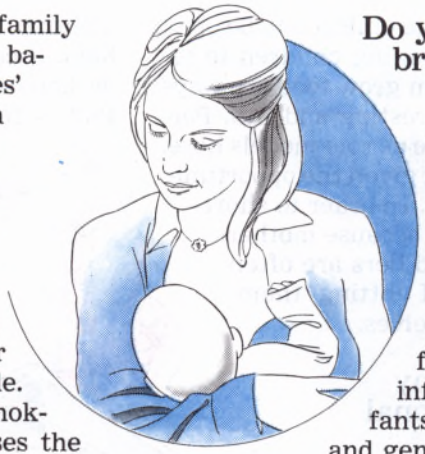
You've mentioned the problem of too much food. Is this really of major concern?

Obesity is a major public-health problem in all age groups in many industrialized countries. Changes in life-style and greater availability of food contribute to this. In school-age children, we see it especially in grades one through three and notably in urban areas where opportunities for exercise are often limited. When a person is carrying more than 20 percent above normal body weight, he is said to be obese. An overfed infant can easily grow into an obese child, and then if steps aren't taken to correct eating habits, the obese child becomes an obese adult—with risk of high blood pressure, diabetes, heart attack, and stroke.

What problems do you encounter with infant nutrition?

We often find that many mothers wean their infants too early and introduce solid foods too soon. They also tend to give more food than is really needed for the health of the child.

Many mothers, pressured by family and friends, often try to wean babies at three months. Since babies' tongues are conditioned to suck in liquids and not to push solid food back properly for swallowing, the baby will often spit out most of the food. Frustrated by this, mothers concoct a kind of baby-food milk shake by diluting the food in formula. Then they feed this through a baby bottle after enlarging the hole in the nipple. Besides the risk of the baby's choking, this type of feeding increases the tendency toward an overweight baby and has also been related to a higher incidence of ear infection.



When is a good time to wean a baby?

Most infants do not need solid foods until they are about six months old, and even then they should not be introduced to high-protein food immediately. Their gastrointestinal system often cannot handle the protein, so there may be slight bleeding in the intestines, which the mother will not even notice. This can manifest itself as anemia. There may also be a problem with the development of allergies and skin problems. The American Academy of Pediatrics recommends that when weaning a baby, something easily digested, such as rice cereal, be given for the first two or three days. And whenever a new cereal is introduced to the infant, it is suggested that only that cereal be given for three days in a row to determine if there are any allergies to it.

Do you recommend breast-feeding?

Most certainly. By all means. Breast milk contains not only needed nutrients in the proper amounts for infants but also antibodies, which prevent many of the infections common in infancy. Breast-fed infants rarely become obese and generally have fewer allergies and gastrointestinal upsets. Unfortunately there is still the misconception among some women that if you can possibly afford it, baby formula is better. Although formula is nutritionally adequate, it doesn't afford the antibodies and the perfect balance of nutrients that one finds in mother's milk.

What about older children?

We see a twofold problem with toddlers. First, they are often overfed, and, second, they are not taught to eat a variety of foods.

Infants require numerous feedings throughout the day, and sometimes mothers keep up that routine as the child grows. But toddlers don't require as much food per pound of body weight as infants do, and they should not be forced to eat all the time.

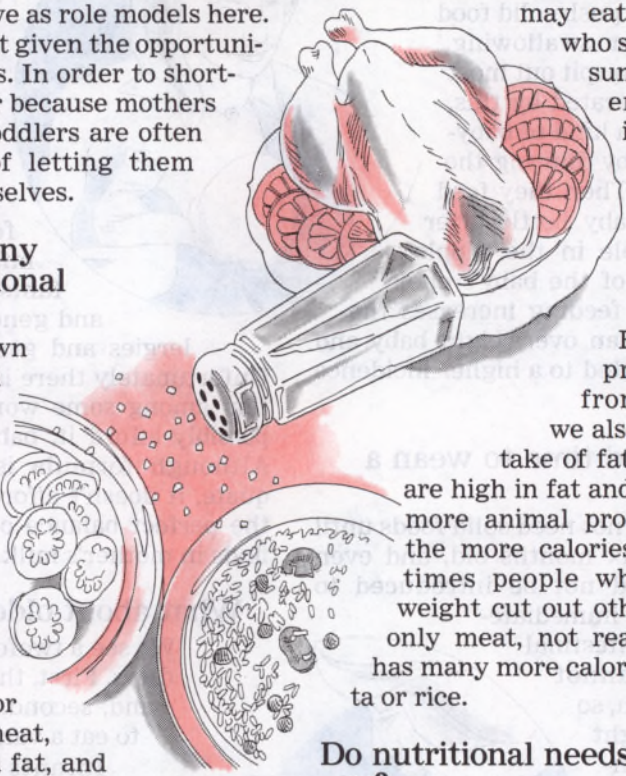
In addition, toddlers often go through food jags, preferring only one or two foods all the time. This can create problems if not handled properly. Children may have trouble adopting a well-balanced diet later. For example, much of the nutritious food incorporated into school-lunch programs gets thrown away because children have never been exposed to some of these foods prior to starting school. So it is

important to encourage children to be open to new foods. Encouraging children to select, prepare, and even grow food are ways of making foods interesting and fun. Parents also need to serve as role models here. Some toddlers are not given the opportunity to feed themselves. In order to shorten their mealtime, or because mothers feel it's their role, toddlers are often spoon-fed instead of letting them learn to eat by themselves.

Do adults have any particular nutritional problems?

Studies have shown that adults among all income groups consume too much fat and sodium (salt) and not enough fiber. Excess fat intake is often reflected by an overweight condition or by arteriosclerosis in some people. Preference for a high intake of meat, which is also high in fat, and snacking on empty calorie foods contribute to these conditions, as does a lack of adequate exercise. Sodium intake is high due to a heavy reliance on processed foods, which, because of today's life-style, people find very convenient to use. Consumption of fiber, on the other hand, is lower because people eat less of the foods in which it is present, including legumes (beans, peas, lentils), fruits, vegetables, and whole-grain breads and cereals.

Americans especially eat larger portions of meat than is really needed. To meet the body's daily requirement for protein, only about two to three ounces (57 to 85 g) of meat is necessary. But it's common to see people consume six to eight ounces (170 to 230 g) of meat at supper alone. This is in addition to the protein in their breakfast ham, bacon, or sausage, and their hot dog or hamburger for lunch and the protein that is found in all the other foods they may eat. The individual who sits down and consumes half a chicken, for example, is really getting four times the amount of protein required for that day and many more calories than needed. By increasing our protein sources from animal foods, we also increase our intake of fat, since almost all are high in fat and cholesterol. The more animal products consumed, the more calories and fat. Sometimes people who want to lose weight cut out other foods and eat only meat, not realizing that meat has many more calories than does pasta or rice.



Do nutritional needs change with age?

Yes and no. We all need the same nutrients no matter what our age but in different amounts. As we age, we require fewer calories. This is because the energy needed to maintain the body decreases with age, although the activity and health may remain constant. If a person becomes less active, then even fewer calories are required. So the elderly need to eat fewer calories and exercise more or they will become overweight. Sugars, fats, oils, and alcohol should be limited as they are high in calories and lack essential nutrients.

Our nutritional needs also change during growth periods—childhood, adolescence, and pregnancy—and after illness or surgery. At these times, we do have to increase

the availability of nutrients to our bodies by eating foods providing more calories and nutrients.

The most common nutritional problem in women still remains that of iron deficiency. The tendency among many women is to cut back on calories, which may be a good thing for their weight, but since iron is difficult to obtain in food, and because it occurs only in certain foods and in limited amounts, the amount of iron available is decreased even more. Iron supplements are often recommended as a safety measure.

Another increasing problem, especially in older women, is osteoporosis, caused by a loss of calcium in the bones. About 40 percent of all women who reach age 80 have this condition. This loss of calcium is actually a normal part of aging, but since women do not usually have a good store of calcium in their bodies—due to a calcium-poor diet and decreased activity throughout life—what would be normal is instead a serious problem. As the calcium comes out of the bones, they become less dense, and many times the person will shrink, appearing much shorter. Curvature of the spine is common along with fractures of the hipbones and spinal column. It is for this reason that calcium-rich foods should be part of the diet throughout life.

What recommendations do you give homemakers for healthier eating?

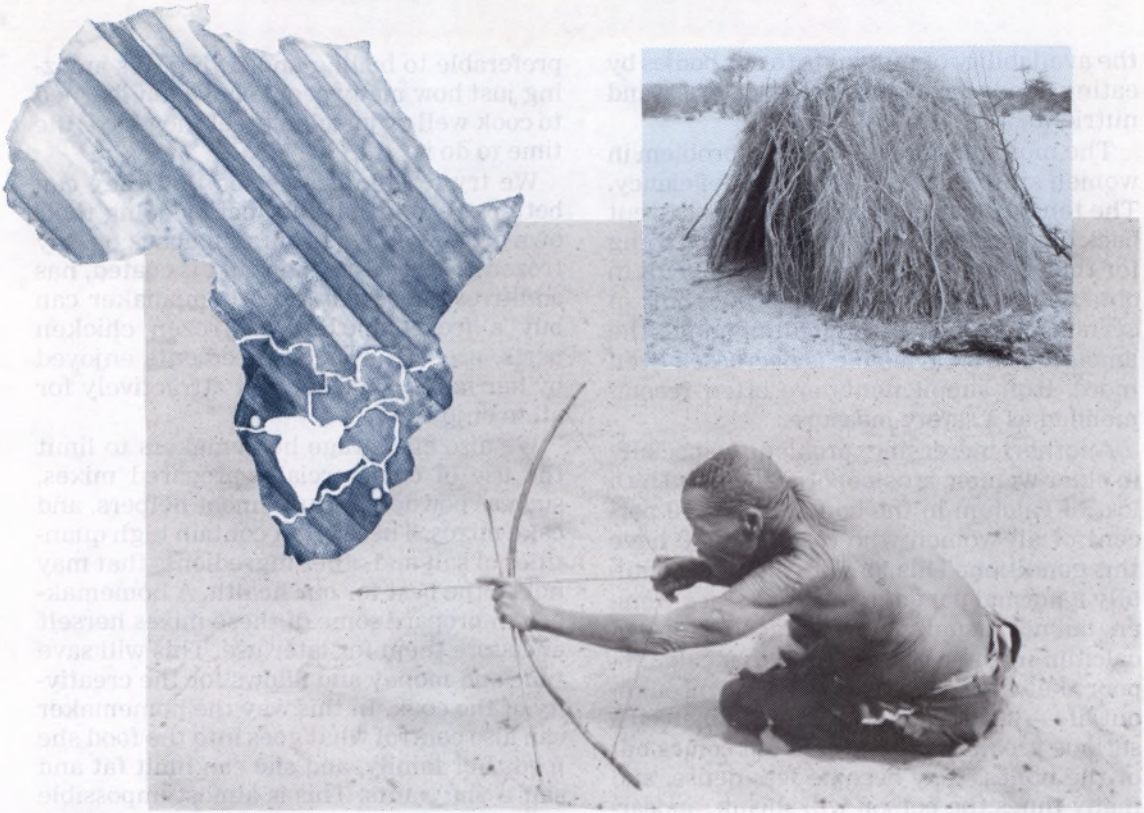
Besides doing what has already been mentioned, we encourage people to eat a variety of foods to assure that they receive all the nutrients they need. Also, since there seems to be a pattern today of opening packages and cans and eating frozen TV dinners, we urge people to look around and select from the wide variety of fresh foods available in the marketplace and then to learn to prepare these foods so that nutrients, taste, and color are preserved. Stir-frying, steaming, and baking are cooking methods that help to do this and are preferable to boiling and frying. It's amazing just how many people have not learned to cook well or just don't feel they have the time to do it.

We try to help people see that they can better control what they eat by doing their own cooking. Instead of falling back on, say frozen prepared chicken that is coated, has additives and extra fat, a homemaker can buy a fresh chicken, or frozen chicken parts, prepare it, add ingredients enjoyed by her family, and serve it attractively for all to enjoy.

We also encourage homemakers to limit the use of commercially prepared mixes, such as powdered soups, meat helpers, and cake mixes. These often contain high quantities of salt and other ingredients that may not be the best for our health. A homemaker can prepare some of these mixes herself and store them for later use. This will save time and money and allows for the creativity of the cook. In this way the homemaker can also control what goes into the food she feeds her family, and she can limit fat and salt if she wants. This is almost impossible to do if you use prepared mixes.

We urge, too, that homemakers become knowledgeable about what nutrients are needed for good health and become informed consumers by looking for ingredients listed on the labels of products before they buy. Since there are new food products and nutrition information in the media every day, homemakers should also get advice from reputable sources of nutrition information. Such reputable sources include health professionals in government agencies, in hospitals, and in local health agencies, and naturally Cooperative Extension, which operates nutrition programs in every state in the United States.

Lastly, and just as important as all the nutrition advice we can give, we also advise people to look at other parts of their lifestyle. Nutrition is one very important component of staying healthy, but it cannot work alone. Exercise and other good health habits work together to make us feel good.



The Bushman

—Africa's Master of Survival

By "Awake!" correspondent in South Africa

"THE last Bushman." So declared the October 26, 1983, issue of *The Star Today!* "Once," the *Star* continued, "millions of Mountain Bushmen roamed the Cape, Natal and Transvaal mountains." Yet it appeared that all that was left of this once proud race was a diminutive old man named Japie Mabinde.

However, thousands of Japie Mabinde's race still live in the neighbouring Kalahari Desert. Their saga of survival in the face of hardship and genocide is thrilling to review.

War With Blacks and Whites

When the black African tribes began to penetrate southern Africa, they found that these lands were already occupied by the Bushmen—a race of unusually small people whose average height is only about 4 feet 10 inches (1.47 m). The Bushmen also differ from black Africans in that their skin is of a yellowish tinge.

For a while the black and yellow natives were able to dwell in the same land peaceably. The black tribes learned to respect the Bushmen because of their knowledge of the

land and its wildlife. There was even an old Sesotho proverb: "The Bushman is the teacher." But peaceful coexistence did not last for long.

In the 17th century, white settlers arrived, shooting and driving away wild game —the Bushmen's prized food. The Bushmen retaliated by stealing livestock. The result? A bitter war between Bushman and white settler that lasted almost 200 years! Then came 1802 and a famine that drove the black tribes to warring among themselves. Shortages of land and food led inevitably to clashes with the Bushmen. In time the little hunters found themselves confined to the Drakensberg and Lesotho mountains.

War with both black and white antagonists continued, however. The Bushman defended what was left of his land with the tactics of desperation: murder, theft, vandalism. But guns and numbers eventually gained the mastery over the tiny hunters, and in 1869, at the command of British colonial authorities, the last organized band of mountain Bushmen was wiped out. Only a few isolated groups remained by the turn of the 20th century.

Few mourned this genocide. In 1897 George Theal, a former representative of the colonial government in the Cape, said: "One may feel pity for savages such as these, destroyed in their native wilds, though there is little reason for regretting their disappearance . . . it was for the world's good that they should make room for a higher race."*

The Kalahari Bushmen

The Bushmen, though, did not all disappear. Thousands survived in the Kalahari —a vast thirstland originally avoided by black and white pastoralists alike. It is a land devoid of surface water. What little rain falls in the summer dries up quickly, making the land suitable for neither agriculture nor cattle raising. Yet the Bushmen have developed ingenious ways of coping. For example, they take wild melons and bulbous roots and scrape them into a pulp. Out of this pulp they squeeze a trickle of precious liquid. Or they detect water hidden beneath the desert sands and suck it up with long hollow reeds.

Living off the land also requires them to become expert botanists. To this day, a Bushman girl can identify 75 different plants before the age of eight. And on reaching adulthood, she will have an intimate knowledge of some 300 species. One Bushman woman astonished an accomplished botanist, Brian Maguire, when she was able to differentiate between two plants that he, the "expert," thought were identical. Explains German scientist Dr. H. J. Heinz: "Generally speaking modern botany separates species essentially on appearance . . . [whereas Bushmen] assess the smell, feeling, texture, taste and appearance."

The Bushman is also a formidable hunter. First he tracks down a herd and selects his quarry. Crawling on elbows and knees, he gets as close as possible and then releases a poisoned arrow. Immediately the herd darts off, but the Bushman relentlessly tracks his quarry. After witnessing several hunts, Alf Wannenburg wrote: "Everything is noticed, considered and discussed. The kink in a trodden grass blade, the direction of the pull that broke a twig from a bush, the

The Origin of the Bushman

Bushman folklore tells of a time when the earth was covered with water and how a person "of the early race" survived. This hero, named Mantis, is associated with the rainbow, and it is said that the first Bushman descended from him. This legend bears a remarkable similarity to the Bible's account of the Noachian Flood. —Genesis 7:6, 7; 9:8-16.

* The 1875 edition of the *Encyclopædia Britannica* described the Bushmen as "degraded" and "the lowest existing type of mankind."

depth, size, shape and disposition of the tracks themselves, all reveal information about the condition of the animal or herd, which direction it is moving in, the rate of travel and what its future movements are likely to be." It sometimes takes more than a day for the poison to have its full effect, but eventually the wounded animal falls behind and is overtaken by his pursuer.

Conservationist and Chemist

Because the land means life for them, the Bushmen have developed a healthy respect for it. So when they gather food, they are careful to move on before denuding an area. Believing that the Creator would punish them for killing an animal unnecessarily, they never hunt for sport. Once a group of Bushmen chanced upon a nest of ostrich eggs—highly valued among them as a source of food and as water storage utensils. Nevertheless, they left the nest alone until they were sure that the hen had finished laying. They then examined and carefully shook each egg, returning those that contained developing chicks. No wonder that some describe the Bushman as "the world's greatest conservationist"!

Bushmen also developed a knack for "chemistry." They learned to mix quality paints for their famous rock paintings, which, according to some, are "judged the world's best primitive art for their accuracy and honesty of observation." These beautiful drawings have successfully withstood weathering for centuries! From the larvae of the *Diamphidia* and the *Polyclada* beetles they also developed effective poisons

A family of Bushmen sit around a campfire in their Kalahari Desert home

By courtesy of the Africana Museum

"That's How It Should Be"

Jehovah's Witnesses have endeavored to share their hope of a righteous New Order under God's direction with their Bushmen neighbours in southern Africa. (Revelation 21: 3, 4) At least one Bushman, named Johannes, responded to their message—although he later died of tuberculosis. However, the "last" of the mountain bushmen, Japie Mabinde, seen to the left, has also had opportunity to hear the Bible's message.

Early in 1984 Jehovah's Witnesses spoke to him. He was shown John 5:28, 29 in the Zulu Bible and told of the prospect of seeing deceased members of his race return in a resurrection. "I'm very happy," Mr. Mabinde said, "because it's the Bible that says so." He was particularly delighted when shown an artist's conception of the Paradise conditions the Bible prophesies will one day prevail earth wide. "Yes," said he, "that's how it should be."

with which they coat their arrows. Once in the bloodstream, these poisons mean certain death for man or beast—there is no antidote.

The South African Bushmen even learned how to "innoculate" themselves against snakebite. They would hold back the head of a dead snake and gently scrape their arms with its fangs. Then a drop of poison would be squeezed out of the fangs and rubbed over the scratches. Equally clever was a chemical concoction they used against the black-maned Cape lion. White settlers were eventually forced to annihilate these monstrous lions. But the Bushmen managed to dwell among them for centuries. The secret? A substance they burned at their campfires that acted as a lion repellent!

Future Prospects for Survival

Today about 55,000 Bushmen inhabit the Kalahari and its fringes. But their life-style as hunters and gatherers is threatened. Boreholes have been sunk to obtain water for cattle raising. The Bushmen, too, have welcomed these permanent water sources, but there have also been disadvantages. "The majority of today's Bushmen," explains the *Encyclopædia Britannica,* "have been dispossessed of their territories by European and Bantu cattle raisers. The intrusion of cattlemen has reduced the supply of game animals and [edible] plants."

The Kalahari, once able to sustain the Bushman, is thus fast becoming a desert. "It wasn't a desert before," renowned author and explorer Sir Laurens van der Post reminds us. "We called it that only because there was no surface water. It's packed with a unique animal and vegetable life." Van der Post therefore mourns this predicament of the Bushman "because he was rich in the way in which we are poor. . . . He was contained in nature. Nature wasn't his enemy." Yes, though he once looked down upon the Bushmen as savages, modern man must now face the fact that he has much to learn from these intrepid survivors.

Now the Bushmen face yet another threat to their existence as a race: assimilation by Western culture. To what extent they will be able to remain intact as a people remains to be seen. Perhaps this will prove the greatest challenge yet to Africa's master of survival.

Young People Ask... Why Is My Teacher So Unfair?

FOURTEEN-YEAR-OLD Vicky speaks for many youths when she says, "I can't stand an unfair teacher." Why, in a 1981 survey of 160,000 American youths, *76 percent* of the youths polled accused their teachers of some sort of favoritism!—*The Private Life of the American Teenager*.

Understandably, youths are upset when they get low grades for what they feel is high-grade work. They resent it when discipline seems excessive, uncalled for, or even motivated by bias. "Once I yawned and I had to go out into the hallway just because I am Black," claimed 12-year-old Ivan.

Also, youths are angry when special attention or preferential treatment is given to teacher's pets. Thirteen-year-old Diane accuses: "They favor the smartest ones, or the prettiest one." No wonder, then, that in the above-mentioned survey, youths rated a teacher's fairness as more important than his knowing the subject he teaches!

Teachers Are People Too

Teachers are far from infallible. They have their fair share of hang-ups, quirks, and, yes, prejudices. At times their emotions get in the way of their judgment. A youth named Freddy found this out when he noticed that his teacher "was snapping at everyone." Freddy tactfully approached the teacher and found the cause of this surly behavior. "It's just that I had a problem with my car this morning," the teacher explained. "It overheated on the way to school and I got to work late."

You may likewise find yourself—for no apparent reason—the butt of a teacher's wrath. Nevertheless, the Bible cautions: "Do not hurry yourself in your spirit to become offended." (Ecclesiastes 7:9) Yes, how distressed do you really need to become over the matter? Is this simply a temporary flare-up that will soon be forgotten? Can you give him the benefit of the doubt and forget the whole thing? The disciple James said: "We all stumble many times. If anyone does not stumble in word, this one is a perfect man, able to bridle also his whole body."—James 3:2.

Teachers and Their Pets

Particularly irritating, though, are the special favors accorded to teacher's pets. Explains 13-year-old Caroline: "Teacher's pets are favorite kids—students that they like better than others. Usually the teacher's pets are the ones that are very good in school, and hardly get in trouble."

A survey of elementary-school teachers indeed revealed that teachers tended to favor "passive conformists and students with above-average ability, particularly bright, obedient girls." A university professor quoted in *Seventeen* magazine further observed: "A student may also attract attention because she happens to be good at something important to that teacher." Whatever the reason, when a teacher grants special favors or attention to a student, he often stirs up resentment. Says Caroline: "I don't think it's fair to other people who aren't teacher's pets."

Why do some teachers act this way? Well, bear in mind that a teacher faces unique

The attention given to teacher's pets often stirs resentment

demands and pressures. The book *Being Adolescent* describes teachers as being in a "serious predicament," saying: "They are confronted with twenty or more teenagers whose minds are usually elsewhere. Their job is to engage the students' attention with information . . . that is not related to the students' immediate personal lives, and, furthermore, may be difficult for them to learn. They have before them a group of highly moody, distractable teenagers, generally unaccustomed to concentrating on anything for more than 15 minutes." Doubtless you'll agree that there's more than a measure of truth to this.

Is it any wonder, then, that a teacher may heap attention on the student who 'is good in school and hardly gets in trouble'? After all, it is human nature to be drawn to someone who makes life more pleasant for us. True, the Bible condemns "making partial distinctions." (James 3:17) And it may gall you when seeming apple-polishers get more attention than you do. But is this necessarily evil?

It may seem that way. But remember that the Bible tells us that Jacob loved his son Joseph more than his other sons. Why? Some of Jacob's sons had brought heartache to Jacob. Joseph's conduct, however, was impeccable. Too, Joseph was the son of Jacob's beloved wife Rachel. Did this mean that Jacob cared nothing for his other sons? On the contrary. On one occasion Jacob even sent Joseph to see if his other sons were "safe and sound." And when on his deathbed Jacob gave out blessings, he was both fair and impartial to *all* his sons. —Genesis 34:30; 35:22; 37:2, 3, 14; 49: 1-33.

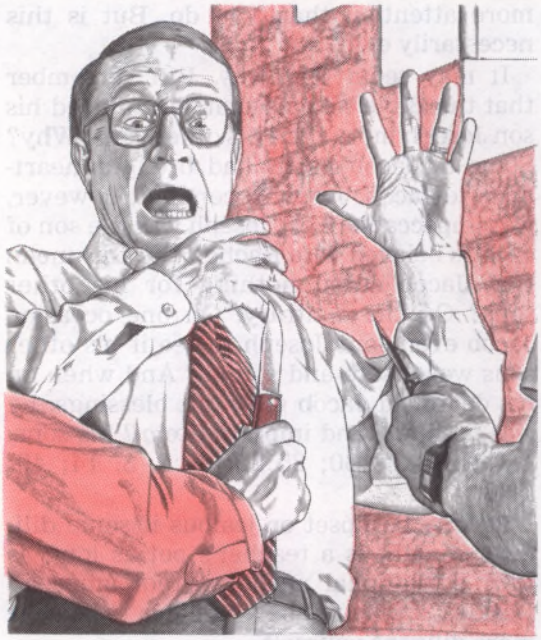
So why be upset or jealous if some diligent student is a teacher's pet as long as *your* educational needs are not ignored? Besides, it may not be a bad idea to be a bit more diligent yourself.

War in the Classroom

What, though, about the teacher that seems genuinely hostile toward his students? Said one student of his teacher: "He kept thinking that we had all declared war on him and decided to get us first. He was one paranoid person." However, many teachers feel they have a right to be a bit "paranoid."

One youth told an *Awake!* reporter: "In my school, the teachers are afraid of the students." Yes, as the Bible foretold, these are "critical times hard to deal with." Youths are often "without self-control, fierce, without love of goodness." (2 Timothy 3:1-3) Said *U.S.News & World Report:* "Teachers in many urban school districts live with the fear of violence."

If not under physical assault, teachers often find their dignity being attacked. Wrote former teacher Roland W. Betts: "Children see it as their inherent responsibility to . . . [figuratively] push them and poke them and see just how far they will bend or stretch before they will finally snap



The rising tide of school violence has made the teacher's job a difficult one

. . . When the children sense that they have pushed a new teacher to within a hair's breadth of his breaking point, they push some more." Have you or your classmates been party to irritating classroom pranks, and the like? Then don't be surprised at your teacher's reaction.

The Bible says: "For mere oppression may make a wise one act crazy." (Ecclesiastes 7:7) In the atmosphere of fear and disrespect that pervades some schools, some teachers understandably overreact and become harsh disciplinarians. Large numbers even become disenchanted and quit the teaching profession. Could you, therefore, have some *empathy* for the teachers who are trying to cope with difficult situations?

Discipline—Why Needed?

It's hard to be understanding, though, when something as important as your grades is involved. Eleven-year-old Stefan, for example, complains: "It's not right that a teacher can take out revenge on a child through his mark. For instance, one of my teachers does that. If a child is caught throwing candy wrappers in the desk, it's 1 1/2 points off the report card."

Admittedly, threatening students with bad grades may not seem fair. But is it really unjust—or just strict? Teachers do have a responsibility to maintain order, and at times that means administering discipline. However, the Bible's advice is: "Take hold on discipline; do not let go. Safeguard it, for it itself is your life." (Proverbs 4:13) Remember, without discipline the learning process suffers. As one youth confessed: "The easy teachers you can walk all over, you're not going to learn anything from."

But you are in school to learn. And if that means quietly accepting a bit of misdirected discipline, or absorbing a frustrated teacher's wrath, so be it. The ability to deal respectfully with those in authority is a skill that could one day mean the difference between employment and the unemployment line. Of course, as a future article will show, you are not entirely helpless in the face of school injustice. But in the meantime, try to have a bit of empathy for your instructors. Perhaps you'll see that some of them are not as unfair as you may think.

In Our Next Issue

- *Reading—A Way to Enrich Your Life*
- *Your Medical Freedom —The Courts Speak!*
- *Horoscopes—Helpful or Harmful?*
- *'Can Smoking Pot Ruin My Health?'*

'Do You Have the TIME?'

WHEN someone asks you that question, you probably take a quick glance at your wristwatch, casually answer, and think nothing more of it. But it hasn't always been that easy to know the right time.

True, God created the two great luminaries, the sun and the moon, to "serve as signs and for seasons and for days and years." (Genesis 1:14) But he left it to man to figure out how to divide days into hours and minutes. Ancient man probably did this at first by observing how the shadows of trees and other objects moved as the sun progressed across the sky. By studying the movement of these shadows, he came upon a simple means of approximating the time: the "shadow clock." Originally, this was simply a vertical stick or pillar and the length of its shadow told the time.

But as time went on, man's timekeeping ways became more sophisticated. The sundial was invented, a device popular even before the time of Christ. Previous to this, however, the Egyptians cleverly figured out a way to use a leaky bucket to tell time. It was simple. As water dripped out, they figured the time by observing the water level. Still, it wasn't exactly the sort of thing you would want to carry around with you. The sandglass, originating in Europe sometime during the 14th century, was quite an improvement. So was the lamp clock, which measured time by the amount of oil consumed.

The real breakthrough in timekeeping, however, came with the development of mechanical clocks, somewhere around the 14th century. Their clever inventor is unknown, though experts guess that the first ones were used in monasteries. As with most great inventions, the basic idea behind the first clocks was the essence of simplicity: A weight suspended on a rope gradually dropped under the pull of gravity. As it did so, the rope drove machinery that was geared to trigger an alarm periodically. The alarm reminded the sacristan to toll the hour, letting the monks know it was time to pray.

Eventually craftsmen figured out how to scale down the size of these clocks. And about the year 1500, a German locksmith named Peter Henlein made a dramatic breakthrough with the invention of the mainspring. Gone were cumbersome ropes and pulleys. The mainspring that "powered" the machinery simply had to be tightened or wound periodically. However, the first portable clock really wasn't so portable. Says *The Encyclopedia Americana:* It was "six inches in height and made entirely of iron." But watches rapidly became smaller and more accurate. Indeed, some of the earlier watches produced are actually works of art!

Nowadays, many people are wearing digital watches. Unlike mechanical watches, they use the frequency of vibration of a quartz crystal to measure time. Because they are inexpensive and quite accurate, they have become the latest fad in timekeeping. For many, though, digital watches somehow lack the charm and beauty of the old-fashioned, well-crafted mechanical watch with its reassuring tick. So, perhaps contrary to popular opinion, the mechanical watch is very much alive and well! But works of art? Well, few, if any, of today's mass-produced watches deserve that distinction. Nevertheless, there still are a handful of old-time craftsmen left who work hard to maintain the old watchmaking traditions.

Consider, for example, a watchmaker named Van who lives in New York City. He is one of the few men in the world who can build a precision watch entirely from scratch. Van was born in 1902 and harks back to an age when watches were labors of love—not mass-produced electronic gadgets. He can doubtless do much to enhance our appreciation for the dying art of watchmaking. So we'll visit him for a while:

A watch made by Van Hoesen

Learning to Love Watches

"How did you become a watchmaker?" we immediately ask.

"My father was a watchmaker," says Van, "and I learned a great deal from him. Shortly after I was born, my father became a railroad-watch inspector. Timekeeping was and is very important for railroad safety. Back then, though, engineers, conductors, and brakemen had to come into the office each time before making a run. They were required to check their watches against the official clock in the office and sign a paper showing they had checked them. So you can see why my father's job was important."

"Did you plan to follow in his footsteps?"

"No, I had in mind becoming a musician. My father, however, said: 'We just can't keep up with all the work in the shop. We need help.' Soon I found myself helping him. He would take watches apart, make repairs, clean them—he was a fanatic about cleaning watches—and then hand me all the parts. I usually had half a day to put them together again. I learned a lot about watches this way."

"How did you know the watches were accurate?"

"Well, there were no radios in those days, but my father built a clock to use as a standard in timing the watches we repaired. He said that at the very worst it was within three seconds a month. We could check that out by going down to the telegraph office. At noontime, transmission would stop and a signal would come over the wire announcing the hour according to Naval Observatory Time."

"When did you make your first watch?"

"In 1919 I was working alongside my father repairing railroad watches down in Memphis, Tennessee. It was there that some years later I set out to make my first watch—a pocket watch that I designed myself. After collecting the necessary tools, I made each part. I cut teeth and gears. I made taps and dies. I ground and polished

Van Hoesen at work in his shop

sapphires and rubies and put them in place. The project was nearly completed when I wrote to a man who had written an article about the famous watchmaker Breguet. When he heard that I was likewise building a watch of my own design, he decided to come from the New York City area to see it for himself. He was simply amazed! He said he knew this was the work of a man who knew what he was doing. His enthusiasm made me feel very good.

"My new friend spread the word about my watch. As a result, some newspaper articles were written about me, and the work started to flow in. Further, my writer friend opened up to me his collection of about 3,000 famous watches, some dating back to the 1600's! Putting some of them in their original running order, I was amazed at the precision, accuracy, and superb craftsmanship.

"In time, I came to New York City, from where much of my work was coming. Several nautical instrument companies sought my work. And although I'm now in my early 80's, I continue to work for a fine watch company, as well as care for some private customers."

What It Takes to Be a Watchmaker

It is easy to see why men like Van are somewhat of a dying breed. Consider the precision and integrity of his work:

"My watchmaking shop," he continues, "is really like a miniature machine shop. I do lathe work, milling, sawing, drilling, and other operations. I sometimes cut metals in increments of less than a 10th of a 100th of a millimeter! Why such precision? Remember, for a watch to work properly, pivots must be perfectly spherical, pointed, and balanced. The watchmaker therefore has to be precise, patient—even artistic. And it takes integrity. I still remember my father saying to me, 'You are probably looking at the last honest watchmaker you will see.' By this exaggeration he meant that so many watchmakers will cut corners and not do the job right!"

Obviously, Van is not one to cut corners either. And while he certainly is not the last of the honest watchmakers, he is a reminder of a past age when beauty and quality counted more than the profits of mass production. For while today's digitals may represent advanced technology, Van will debate with you as to whether they have the "integrity" of watches made in the past.

Still, whether you wear an inexpensive digital or an expensive handmade chronometer, you are probably glad you don't have to lug around sandglasses or dripping buckets. Centuries of work and craftsmanship have made it as easy as a glance at the wrist to answer the question, 'Do you have the time?'

From Our Readers

Young People Ask . . .

I am 10 years old and want to thank you for your articles "Young People Ask . . ." They have taught me to be balanced when it comes to watching TV, doing my homework and housework, and how to earn respect from my parents by obeying them.

M. F., Ohio

I'm a mother of four and really do appreciate your articles "Young People Ask . . ." These help bring up regular talking points to communicate with all our kids, from the 14-year-old down to the 3-year-old. I thank you for that help we parents need.

L. W., Iowa

Finding Happiness

Your issue on "Happiness" (March 22, 1985) prompted me to write and say "Thank You!" These articles put into words just how I felt before knowing Bible truths. I was not unhappy but realized that life should have more meaning. I had always loved the creation but had never come into contact with the Creator, and I realize that was what was missing. Now I appreciate my relationship with the Creator, Jehovah God, and feel so happy about this.

C. R., England

Giving Up Fame

In reviewing my "Awake!" magazines for 1984, I was deeply impressed by the wealth of information contained in them. I especially found interesting the experiences of the Lebanese basketball player (February 22, 1984, "Eleven Years to Find True Treasure") and the Uruguayan concert guitarist (December 8, 1984, "My Guitar, My Music and My God") who, after having 'gained the whole world,' were able to conquer it and, like Moses of old, preferred to be a part of God's humble people rather than enjoy "the treasures of Egypt." (Matthew 16:26; Hebrews 11:25, 26) May God bless and strengthen such persons who put aside fame and seek first the Kingdom.

S. R. Z., Brazil

Job Interviews

Recently I signed a job contract to work as an apprentice. Already last fall I began writing requests for a position. In several instances I was turned down immediately, in others after an interview had taken place. Then I remembered the article in "Awake!" entitled "Young People Ask . . . How Do I Handle a Job Interview?" (February 8, 1983) I followed the suggestions offered, and imagine my joy when I was invited for an interview! It turned out very positive. I also noticed that, in general, people pay little attention to their appearance, for I was the only one out of four girls who was wearing a skirt. I tried to apply everything listed on page 25, including the last point, that a short thank-you letter be sent after the interview. I think that contributed to my getting one of the two available apprenticeship positions.

S. R., Federal Republic of Germany

Family Communication

I really enjoyed the article on "Family Communication—Why the Breakdown?" (January 8, 1985) Especially the point on how TV, videotape recorders, and video games are pushing out time for us to communicate with our family members. Knowing this makes me leave the television set off when we are all gathered together, for example, when having a meal.

C. O., England

Watching the World

Cyclone Devastation

On May 24 a cyclone (hurricane) devastated the lowlands of southeastern Bangladesh. The country's president, Lieutenant General H. M. Ershad, said he believed that the storm killed at least 5,000 people. (Later estimates placed the death toll at 10,000.) The storm whipped up walls of water 10 to 15 feet (3 to 5 m) high that washed over the tiny delta islands nestled in the Bay of Bengal. Driven by 100-mile-per-hour (160 km/hr) winds, the waves left a wake of destruction of man, animal, and land.

Soccer Violence

Brussels, the picturesque capital of Belgium, was the scene of ugly mayhem and death as English soccer fans assaulted Italian fans. As millions of horrified television viewers watched helplessly, 38 people were killed and more than 250 were injured in the May riot. "Such horror at a soccer match has never been seen in Europe in history," said Ruprecht Eser, the anchorman of television channel Z.D.F. The riot erupted before the start of the final European Cup of Champions soccer match between teams from England and Italy.

In the aftermath, England's Football Association banned its six soccer clubs that were qualified for European competition from competing in Europe for one year. The decision "pleased" Prime Minister Margaret Thatcher who said: "There are so many dead people and so many injured people as a result of the actions of our citizens that it requires very firm measures." This was followed by the decision of the 34-nation European Union of Football Associations to ban English club teams from European play indefinitely.

Safety-Cap Success

Safety caps on drug bottles may be hard for adults to remove,

but they are saving lives. According to estimates from the CDC (Centers for Disease Control) in Atlanta, Georgia, the caps saved 86,000 children in the United States from being accidentally poisoned between 1974 and 1981. However, poisonings of children continue to be a real problem, as many adults do not store poisons properly or know what to do when an emergency arises. Over 110,000 children under five years of age received emergency-room treatment for poisoning in 1983.

Job Satisfaction

Which is more important in job satisfaction—money or autonomy? If you say autonomy, you are correct, according to Dr. Jeylan T. Mortimer, professor of sociology at the University of Minnesota. In her report at the annual meeting of the American Association for the Advancement of Science, she said that "work autonomy"—the extent to which employees can make their own decisions and influence what happens on the job—ranks ahead of income as the main source of job satisfaction.

New Concordat

Roman Catholicism is no longer the state religion of Italy. On June 3, the Italian government and the Vatican ratified a historic new concordat that ends some of the rights the Catholic Church held in Italy. It replaces the 1929 Lateran Treaty signed by Benito Mussolini and the cardinal secretary of state for the papacy, which recognized Vatican City as an independent state and Roman Catholicism as the only state religion. The new pact retains the independent status of the Vatican

but ends Rome's rank as "sacred city," as well as ending compulsory Catholic education in public schools. "Today opens a new period in the institutional relations between the church and the state in Italy," Pope John Paul II said.

Generic Prescriptions

Approximately seven out of ten prescriptions written in Texas are available in generic forms and could be available to consumers at cost savings of up to 40 percent. However, a lack of awareness on the part of physicians, pharmacists, and consumers has limited these savings, according to a study recently conducted at the University of Texas at Austin by Dr. Marvin D. Shepherd. "Consumers probably are not fully aware of what they can save from generic substitutions," says Shepherd. "In our study we found that the average selling price for the brand name product prescription runs around $12. If a generic substitution is used, we generally found a selling price of about $7.50."

Record Car Thefts

Britain tops Europe in car thefts, according to the Federation Internationale de l'Automobile, a Paris-based motoring organization. Last year, for every 10,000 cars registered in Britain, 22 were stolen. France ranks next with 13 cars stolen for every 10,000 registered, then Sweden with 12, Spain with 11, Italy with 6, Belgium with 4, and Federal Republic of Germany with 3.5. Last year the United States had 9 cars stolen for every 10,000 registered. Scotland Yard calls this criminal craze for stolen cars "very serious."

Trimming the Pocketbook

"Americans of all ages are filling their bedrooms and basements with stationary bicycles, rowing machines, treadmills and other expensive equipment that promises to shed flab and hone muscles," reports *The Wall Street Journal.* "The old-fashioned way: Running, swimming—even gardening—will burn just as many calories as a machine," says the

Journal, "and at far less cost." Regular exercise may also be safer. Injuries resulting from equipment that is poorly made, misused, or inadequately supervised have dramatically increased in recent years.

Children and Vitamins

The average parent quite likely believes that "vitamins are a safe and easy way to give children 'nutritional insurance.'" However, a study published in the *Canadian Medical Association Journal* shows that "overdoses of multiple vitamins can pose more of a risk to young children than the nutritional problems they're supposed to prevent," says the news service Canadian Press. The study indicated that parental misconceptions as to the value of vitamins was a leading cause of overdose. It is a common mistake to think that if something does you some good, a lot of it will make you a lot better.

Child Marriage

Though outlawed since 1929, the practice of child marriage continues in India. A recent survey shows that about 13 percent of girls in rural areas marry between ages 10 and 14. According to tradition, Hindus believe that *Akha Teej* Day is the most auspicious one for marriages. *The Times of India* reports that as many as 40,000 child brides and grooms are united in wedlock on that day in the state of Rajasthan. Those married include the yet unborn, whose sex is claimed to be determined by astrologers.

Sewage Power

Sewage from half a million people in the Greater Bristol area of England is being put to use profitably. Every day the local water authority's Avonmouth plant yields 530,000 cubic feet (15,000 cu m) of gas from the sewage. In turn, the gas drives engines to produce electricity. *The Times* of London reports that a little more than a quarter of the daily gas output from the plant will help generate enough electricity to supply all the needs of a small village. Methane from the sewage plant also powers 12 water-authority vehicles that have been adapted to run on gas.

Seminar on Aging

The cause of aging was the topic of discussion at a recent international convention held in Rome, Italy. Molecular biologists, physiologists, biochemists, and physiopathologists from Italy and Israel met. *La Repubblica,* reporting on the seminar, said that "many researchers, all over the

world, are convinced that the basis for the process that we call aging is to be found through study of the cell." Realizing the renewal capacity of the human body cells, some researchers concluded that "on the cellular level, *we were designed* to live much longer than we imagine."

Reverse Action

It is salt that causes corrosion of the reinforcing rods placed in the concrete of elevated bridges and roads, making the rods expand, cracking the concrete, or even causing chunks to fall off. According to *New Scientist* magazine, the salt sets up an electrolytic cell action that causes the corrosion. The solution, say researchers at Queens University in Kingston, Ontario, is to reverse the electrolytic cell action by application of an electric current. Motorists are in no danger as only four volts are required. In North America about a hundred bridges have thus far been treated. New construction is being protected by coating the rods with epoxy paint.

Emotionally Caused Pain

Treating pain due to emotional causes as solely a physical illness, says Dutch doctor Wouter Oosterhuis, may result in incurable and chronic patients. Studying the cases of 500 patients for whom the physical cause of their pain could not be found, Dr. Oosterhuis found an overwhelming relationship between the emotional problem and the area of pain. As reported in London's *Sunday Times,* nearly all those suffering from feelings of aggression experienced pains in the neck. Those who had fears complained of abdominal pains. And pain in the back—just above the seat—was the complaint of the majority of those in despair. Psychological support and help in solving their problems is necessary, the doctor said.

Crime Rates Up

Canadian Banker, in a report on "Armed robbery in North America," says: "No matter how they figure it, statistics prove that crime rates have climbed sharply in recent years." From 1962 to 1980, the rate for robbery per 100,000 inhabitants has quadrupled in Canada and in the United States.