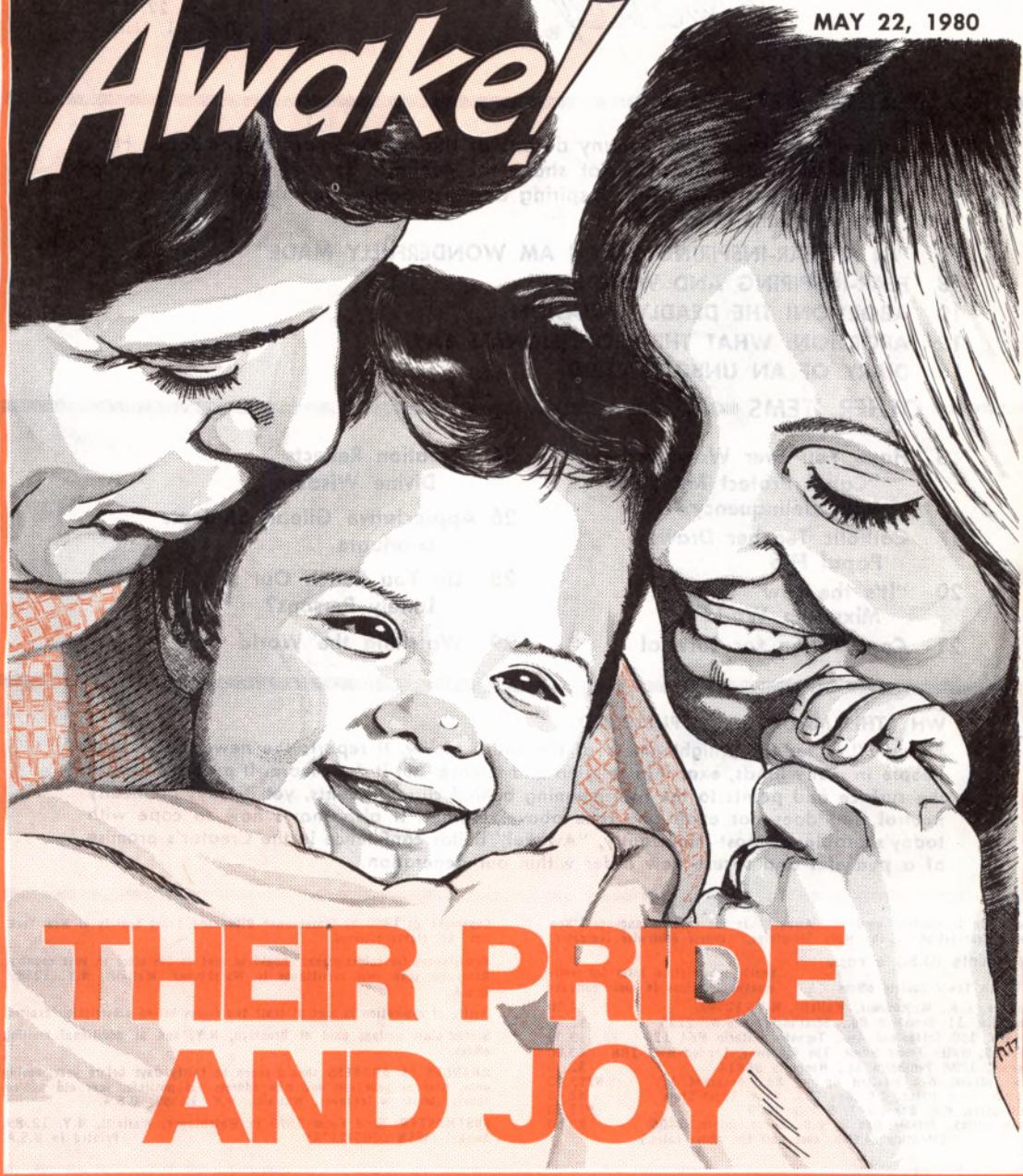


Awake!

MAY 22, 1980



THEIR PRIDE AND JOY

...but millions prefer abortion

FEATURE ARTICLES

Modern science knows many details of the development of the fetus. However, millions today do not share the feelings of the man who thanked God because of the fear-inspiring and wonderful way that he was formed in the womb

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WHY THIS MAGAZINE IS PUBLISHED

"Awake!" is for the enlightenment of the entire family. It reports the news, tells about people in many lands, examines religion and science. But it does more. It probes beneath the surface and points to the real meaning behind current events, yet it stays politically neutral and does not exalt one race above another. It also shows how to cope with today's problems. Most importantly, "Awake!" builds confidence in the Creator's promise of a peaceful and secure new order within our generation.

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

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Have You Ever Wondered

"Can I protect my child from delinquency?"

"I'D GIVE anything to keep my child from turning out bad, but at times I feel so helpless." This is how one parent felt. Perhaps you do too.

Most parents consider their children very precious. Over a period of years they invest time and money—plenty of it—in helping their children to become responsible adults. Yet, so many youngsters cause their parents heartache. There is no need to give the sad details. You know what is happening in your own neighborhood. Certainly, rearing a child today is no easy task.

WHY IS IT DIFFICULT FOR PARENTS TO PROTECT THEIR CHILDREN?

Parents must compete with many powerful forces that can dramatically influence children. They are daily in the company of other children and adults who are selfish, disrespectful and immoral. Also, many of the popular movies, TV shows and books viewed by youngsters belittle right principles.

Most parents have to work long hours to provide food and shelter. Often they feel too tired—either mentally or physically—to give their children needed time and attention. Also, parents make mistakes in their own lives. Being human, they are prone to do things that do not set the best example for their youngsters.



All of this makes it difficult to keep a child from picking up bad habits and getting into trouble. Yet, these obstacles can be overcome if parents stay emotionally close to their child.

HOW CAN YOU STAY CLOSE TO YOUR CHILD?

The first step is to recognize your child's great need for your love and attention. The Bible strongly recommends that parents "love their children" and "not be exasperating [them], so that they do not become downhearted."—Titus 2:4; Col. 3:21.

The book "Help! I'm a Parent" affirms this need by saying: "This search for a feeling of love and attention is probably the most important explanation of your child's behavior." Some parents who are insensitive to this need tend to substitute other things for it. For instance, one 15-year-old girl bemoaned: "Nice parents are those who are not like my mother. Her main worry is that I should be dressed 'as well as the others.' But neither she nor Father takes the time to talk with me."

Your time is needed. There is no substitute. This means taking time to do things together, to talk with them and, more importantly, LISTENING as they pour out their problems.

Genuine love means more than mere pleasant conversation with your child. It means setting down right guidelines for the child and firmly insisting that these be followed—in a word, DISCIPLINE! Long ago the Bible showed that this is a sign of real love, saying: "The one holding back his rod is hating his son, but the one loving him is he that does look for him with discipline."—Prov. 13:24.

"Discipline is a special kind of love," reports one authority. "It says, 'I care about you. I will not let you get into trouble. Rant and rave, . . . but the answer is no—and that's final!'" Yet, despite the best of parental concern and discipline, a child must face bad influences from others.

IS IT POSSIBLE TO PROTECT YOUR CHILD AGAINST BAD INFLUENCES?

Yes, but you must supervise what your child sees and reads for entertainment. As a veteran police chief indicated, 'Parents must not let their children's minds feed on garbage.' A parent also must exercise care as to whom he allows his child to have as companions, for the Bible says: "Do not be misled. Bad associations spoil useful habits."—1 Cor. 15:33.

Though corrupting influences are everywhere today, we can be comforted to know that they are not permanent. The Bible promises that soon, within our generation, God's heavenly government will see to it that his 'will is done on earth as it is in heaven.' This will mean the removal of wickedness and the establishing on earth of tranquil conditions such as now exist in heaven.—Matt. 6:9, 10; Ps. 37:10, 11.

Until that time no parent can shield his child entirely from bad influences, so the Bible realistically advises parents to fortify their child's mind. How? By 'bringing

him up in the mental-regulating of Jehovah.' (Eph. 6:4) If a parent can instill the laws of God into a child's mind and heart, these can act as a controlling or 'regulating' influence. They will help the child maintain proper conduct even when he is away from home.

But how can you instill such principles into your child's mind? Many parents feel at a loss.

WHERE CAN A PARENT FIND HELP?

For decades Jehovah's Witnesses have been spending millions of hours helping families to learn and apply Bible principles free of charge. A recent nationwide television broadcast in the Federal Republic of Germany vividly showed the value of their work in helping persons to cope with juvenile delinquency.

After seeing the program, one woman who was deeply impressed by the Witnesses' success in fighting drug abuse, called a local Witness. She had seen on TV how the Witnesses use the book "Your Youth—Getting the Best out of It"** to help parents to instill in their children right standards. The book contains such chapters as "Drugs—Key to Real Living?" "Should You Drink Alcoholic Beverages?" and "How Do You View Your Parents?" The woman pleaded: "My son has a drug problem. Do you think you could help? Would you be willing to try?" Soon she and her son were receiving personal help and benefiting from the association of adults and children who, though not perfect, are trying to live by the Bible.

Why not take advantage of such help. You have nothing to lose by such an investigation. No doubt you will agree with the parent who realistically said: "Today we parents need all the help we can get."

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"IN A FEAR-INSPIRING WAY I AM WONDERFULLY MADE"



So David sang long ago in a psalm of praise to Jehovah

way I am wonderfully made. Your works are wonderful, as my soul is very well aware. My bones were not hidden from you when I was made in secret, when I was woven in the lowest parts of the earth. Your eyes saw even the embryo of me, and in your book all its parts were down in writing, as regards the days when they were formed and there was not yet one among them."

Millions of persons on earth today dismiss this fear-inspiring wonder of human birth as a process that originated by chance. Millions of others consider the process an inconvenience and nip it in the bud. However, there are still other millions that are deeply stirred by the marvels of human birth and cry out as David did: "*I shall laud you because in a fear-inspiring way I am wonderfully made.*"

Advancing knowledge has brought to light many of the wonderful workings within the darkness of the womb, but many mysteries remain. Both the knowns and the unknowns are awe-inspiring to the sensitive and appreciative millions. And they feel this awe not only for their own individual birth, but for that of their offspring, whom they recognize as "an inheritance from Jehovah."—Ps. 127:3.

Once one of the thousands of male sperm completes its incredible journey up to the egg in the Fallopian tube and penetrates its outer shell, no other sperm may enter.

ONE plus 1 equals 1. That's strange mathematics. But then that 1 divides into 2, then 4, then 8, and continues dividing until years later the 1 has become 60 trillion or more. That's marvelous mathematics!

We're talking about us, about a process each one of us has experienced. One male sperm met one female ovum in our mother's Fallopian tube and they merged to become one fertilized egg cell. Nine months and countless millions of cells later we entered the world as a newborn baby. As we grew to adulthood our cells numbered into the scores of trillions. And it all began with 1 plus 1 equals 1.

The process involves much more than mathematics that is both strange and marvelous. It is a fear-inspiring wonder, and was something for King David of Israel to sing about, three thousand years ago. His song to Jehovah his Creator is recorded in Psalm 139:13-16:

"You yourself produced my kidneys; you kept me screened off in the belly of my mother. I shall laud you because in a fear-inspiring

The egg is fertilized, conception has occurred, and a "blueprint" has been made for a living human creature. At that moment the sex, the fundamental physical and emotional characteristics, special gifts and talents, as well as deficiencies, along with multitudes of other details, are settled. Environment both during pregnancy and after birth exerts a modifying or intensifying influence, but the basic pattern of the person is established.

Before any of the thousands of bodily parts are present, the time of their appearance is set and their size and shape and function are determined. "*In your book all its parts were down in writing, as regards the days when they were formed and there was not yet one among them.*" The "writing" or "blueprint" is in the 46 chromosomes with their many thousands of genes that carry the hereditary material from both parents—23 chromosomes from each parent.

At first the dividing cells are the same, but soon profound differences appear. The cells are now different in appearance and in function both from one another and from the original fertilized egg. Within eight weeks there are liver cells, heart cells, muscle cells, blood cells, brain cells, bone cells and many more—all with specialized functions, yet all with the same original set of genes as in the fertilized egg!

How this happens is still a mystery, but the following grossly oversimplifying illustration will give a glimmer of the complexities involved. There are thousands of identical factories, each with the same thousands of machines, and each machine makes a different part needed in order to assemble an automobile. Each factory, with all its machines, is capable of making a complete car. Strangely, however, in each factory only one machine operates, making only

one specific auto part. All the other machines are shut down! One factory makes spark-plug wires, another makes door handles, a third makes a certain gear, each factory using only the machine needed for that particular part. Each factory makes

Why do the cells that start making certain organs always come in just the right place, so that teeth always grow in the mouth and not on top of the head?

only the part assigned to it, using only the one machine needed to produce that part, and all the other machines are idle. But when all the parts made by all these factories are brought together and assembled, a complete car is the result.

Similarly, each body cell is like a factory, its sets or combinations of genes are like the machines—only the cells and gene combinations number into the trillions instead of the thousands used in the analogy. Each set of genes is specialized so as to make a specific part for the human body. Each cell has all the multitudes of gene combinations needed to produce our body, but only one set of genes (one machine in our analogy) operates to make its own specific assigned part—liver cells, for example. All the other genes in this cell are shut down. Similarly, other cells specialize and operate only the gene combinations or "machines" that make heart cells, or skin cells, or muscle cells, and so on. All together, the cells produce all the various kinds of tissue needed to make a complete human body.

What causes certain sets of genes to work, and what turns off all the other

genes in that cell? What governs what cells will make what parts? What makes production start, and what tells when it's to start? What turns off these cells when the parts are completed, unlike wild cancer cells that don't know when to stop? And why do the cells that start making certain organs always come together in just the right place, so that teeth always grow in the mouth and not on top of the head, and lungs always connect up with the air passages and not the intestines?

Scientists offer theories, but they do not know. We know it's because nothing is left to chance; the cells follow the blueprint-like "writing" Jehovah put into the genes. To us this is fear-inspiring, wonderful, and strong cause for us to laud him. "*Your works are wonderful, as my soul is very well aware.*"

Another wonder to be aware of: the mother's body does not reject the embryo, although it is a foreign body having a different genetic makeup. The human body

Nothing is left to chance. The cells follow the blueprint-like "writing" Jehovah put into the genes

normally does not tolerate any tissue that differs from it genetically in even the slightest degree, yet half of the genes in the embryo come from the father. Notwithstanding this, the mother's body not only tolerates the genetically foreign tissue of the child but nourishes it for nine months! Scientific experiments have shown that something happens during pregnancy that suppresses the mechanisms of rejection, and the developing child is safely isolated from this danger. As the psalm says,

"You kept me screened off in the belly of my mother."

While screened off in the womb the child has everything done for it. Mother nourishes it, protects it, keeps it warm, and her bloodstream passes on the vital oxygen to baby's blood by way of the placenta. But with baby's birth a crisis arrives. No more oxygen from mother! Baby must get it for himself, quickly, or die!

A dramatic, lifesaving change takes place. The pathway of the circulating blood must be altered. In the womb a hole in the wall of the fetal heart that separated the right and left chambers kept much of the blood from ever going toward the lungs. Of what blood did head that way, most bypassed the lungs through a large temporary vessel. Only about 10 percent of the blood went through the lungs. But upon birth all of it must do so, and fast! To accomplish this, within seconds after birth the hole in the wall separating the heart chambers closes and all the blood now goes toward the lungs. The big vessel that shunted the blood off from the lungs now constricts and all blood passes through the lungs. Baby breathes, the activated lungs oxygenate the blood, the dramatic changes have been made, metabolism continues, and baby lives!

Man cannot make a single simple living cell in his multimillion-dollar laboratories, but a man and a woman together can make another human being. Of infinite complexity, an original, unlike any other person on earth. An amazing feat, awesome and incomprehensible—yet valued so little by so many, who so blithely snuff out this new life developing in the womb because they do not wish to be bothered with it. They are oblivious to the fact that this "fruitage of the belly is a reward" from Jehovah, and is fear-inspiring and wonderful.—Ps. 127:3.

FEAR-INSPIRING AND WONDERFUL



FEMALE OVUM



MALE SPERM



FERTILIZED EGG



WHICH DIVIDES



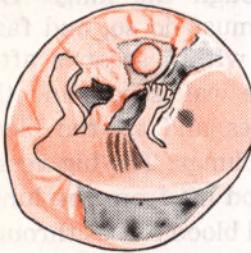
AND DIVIDES...

AND DIVIDES . . .



3 weeks. The embryo is one tenth of an inch long, but already has a primitive nervous system with a two-lobed brain. A U-shaped heart pumps blood through a simple system of vessels. Blood is made by the yolk sac.

AND DIVIDES . . .



9 weeks. No longer called an embryo, it is a fetus some 2 inches in length from crown to rump. The liver has taken over the manufacture of red blood cells, but by now the cartilage is turning to bone, which will take over the work of producing blood. All vital organs have been developed, kidneys are functioning. Major muscles have now formed, along with eyes, ears, nose and mouth. Arms and legs are present, also fingers and toes.

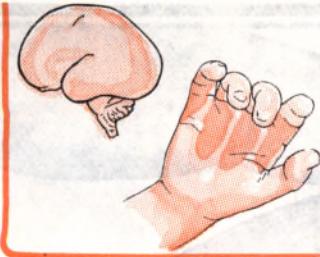
AND DIVIDES . . .



4 months. Now some 8 to 10 inches long. Movements that started at 3 months now intensify. The baby bends, twists and even turns somersaults—it's virtually weightless floating in the fluid of the amniotic sac. Its mother may even be awakened during the night by its vigorous movements. It sucks its thumb, exercising muscles to be used later for feeding at its mother's breasts. The entire reproductive system has formed. Salivary glands work, peristalsis moves the intestines. Three major regions of the brain—medulla, cerebellum, cerebrum—are clearly separate. Fingers and toes curl when palms and soles of feet are tickled.

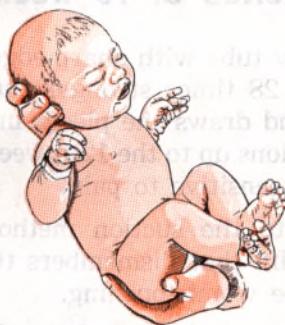
AND DIVIDES . . .

6 months. Many organs are virtually completely developed. nostrils are open, hair and eyebrows are growing. The baby can be startled by loud noises and probably hears its mother's heartbeat. Fissures begin to form on the cortex of the



expanding cerebrum. Fingernails and fingerprints appear, and, inexplicably, the baby's grip is stronger now than it will be at birth. Although weighing less than one pound, with special care it can now survive outside its mother's womb. One case is known where a premature baby of 5 months survived, and as sophisticated medical equipment and skills increase, the age of viability (ability to live outside the womb) will shorten.

AND DIVIDES . . .



40 weeks. The baby's ready to leave the womb. The mother's ready. The elastic walls of the uterus have been stretched to capacity, and now rhythmic contractions make themselves known in the form of labor pains. The uterus is the largest and most powerful muscle of the human body and its contractions put 25 to 30 pounds of pressure on the contents of the womb. The baby is pushed out, travels along the birth canal and enters the outside world. The umbilical cord is cut and closed off, the baby breathes, and the fetal circulation that bypassed the lungs now changes to normal circulation through the lungs for the blood to rid itself of carbon dioxide and take on the life-sustaining oxygen. Baby is on its own!

BUT ITS CELLS CONTINUE TO DIVIDE . . . AND DIVIDE . . . AND DIVIDE . . .



2 YEARS



10 YEARS



BEAUTIFUL YOUNG ADULT

UNTIL 60 trillion or more complete the fearfully and wonderfully made adult human creature.

UNLESS some force intervenes to halt the continuing cell divisions. Today such a force is intervening, a deadly invasion taking place millions of times every year. The

up in their youth" that grace the family circle. But millions of mothers a year now insist that abortionists invade their womb and nip in the bud the "little plants" living there.—Psalm 144:12.

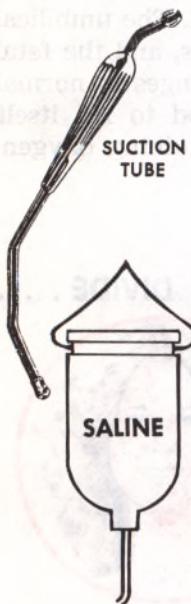
ABORTION!

the deadly invasion



No one will ever hear the patter of these little feet
—aborted at 10 weeks

HOW IT'S DONE



Suction Aspiration. A suction curette (hollow tube with sharp-edged tip) is inserted into the womb, and suction 28 times stronger than that of a vacuum cleaner shreds the baby and draws the pieces into a container. This method is used in most abortions up to the 12th week. By then the child is completely formed and sensitive to pain.

Dilation and Curettage (D & C). Similar to the suction method, except for the insertion of a loop-shaped knife that dismembers the baby and scrapes the pieces out through the womb opening.

Saline Solution. Fluid is drawn out of the amniotic sac where the baby is and a concentrated salt solution injected in its place. The baby breathes and swallows the solution, struggles, hemorrhages, goes into convulsions, and in a few hours dies. Thereafter the mother goes into hard labor and delivers a dead or dying baby. This method is used in advanced pregnancies, four to six months.

Prostaglandin Abortion. Birth hormones are injected into the amniotic sac to induce premature birth. Salt is often injected first to prevent live births.

Hysterotomy. Similar to a cesarean section. The abdomen and womb are opened surgically and the baby is removed. Nearly all these babies are lifted out alive, struggle for a while, cry and die. Used in very late abortions, when premature births could survive.

IT'S LEGALLY DONE



For the past few years more than two thirds of the world's women have had access to legal abortions in their countries, a United Nations study reported. The reasons for allowing abortion are similar: the physical, mental, social and economic well-being of the woman concerned.

In the United States, by a 7-to-2 ruling in 1973, the U.S. Supreme Court said that "legal personhood does not exist prenatally" and the baby is not entitled to legal protection of his or her life. Until 1973, the unborn child's life, even its ability to sue, inherit, and qualify for social security benefits, were protected by law regardless of its age.

WHY IT'S DONE



IT'S WIDELY DONE



Mother's life endangered, fetus defective, pregnancy due to rape or incest. These reasons applicable in only a very small percentage of cases. Ninety-five percent or more of abortions, called "therapeutic abortions," are for other reasons.

For "Health." The mother might feel mental stress if pregnancy interfered with special schooling, or career, or social activities, or vacation—almost any inconvenience that would "distress" her. She might plead it would cause financial hardship, and be legally qualified for an abortion. Or the family circle would be "disturbed."

For Birth Control. Abortion is often used as a means of birth control or planned parenthood. Some couples do not wish to bother with contraceptives. Contrary to expectations, the pill has not turned back the rising tide of abortions. Many have repeat abortions.

For Sex Control. By obtaining fetal cells from the amniotic fluid doctors can test for genetic defects in the baby. They also can tell the sex of the baby. This is resorted to by some, and on the basis of this information they decide whether to have an abortion or not. If it's a girl and they want a boy, or if it's a boy and they want a girl, an abortion eliminates the unwanted child.

For Money. The doctor who specializes in abortions can get rich quick. The usual uncomplicated abortion takes 15 minutes, and one press report in 1974 tells of a doctor who did 40 to 50 a day at 55 dollars (U.S.) each. Under oath he is said to have testified that for the first half of 1971 his gross income was over \$250,000.

Also, some doctors cash in on freshly aborted fetuses, selling them to drug companies, research hospitals and various government agencies. The more advanced the pregnancy, the more valuable the fetus. A scandal about this broke in Washington, D.C. Some doctors were suspected of encouraging both unnecessary abortions and abortions well beyond the three-month period.

It is practiced world wide, whether legal or not. As far back as 1975 and earlier, millions of abortions were performed yearly in the Soviet Union, according to estimates by the Population Council funded by the United Nations. Also yearly: over 2,000,000 in Japan, 2,000,000 in Brazil, more than 1,000,000 each in Italy and in the United States. Fifteen years ago a government study in India reported 3.8 million abortions performed annually.

In 1974 the Population Tribune forum, held in conjunction with the United Nations World Population Conference, said that in some countries half the pregnancies were ended by abortion, and cited studies showing that 55,000,000 women in the world had abortions in 1971 alone!

Who knows what the worldwide figure is now—except Jehovah God, who notes even the fall of a sparrow.



ABORTION: what the professionals say

Clashing views on the medical front
Changing views on the legal front



BERNARD NATHANSON, M.D., once head of New York's now defunct first and busiest abortion clinic, did a dramatic turnaround as he said: "I became convinced that as director of the clinic I had in fact presided over 60,000 deaths." He added: "To vehemently deny that life begins when conception begins is absurd!"

Dr. Howard Diamond, of Beth Israel Medical Center, disagrees: "If I feel anything, I feel gratified. Abortion is much more important than the life of a child that doesn't exist. . . . A fetus is nothing!"

Doctors' reactions to performing abortions vary widely. At one extreme there is guilt and despair. The doctors admitted to heavy drinking and nightmares from performing great numbers of assembly-line abortions. At the other extreme there are doctors who claim to derive satisfaction from the operations because they feel they are saving women's lives, both emotionally and physically.

Some doctors have mixed feelings. Dr. William Rashbaum, of Beth Israel Medical Center, once had nightmares about a tiny fetus resisting abortion by hanging on to the walls of the uterus. He learned to live with that, no longer has that fantasy, but said: "I'm a person. I'm entitled to my feelings. And my feelings are who gave me or anybody the right to terminate a pregnancy? I'm entitled to that feeling, but I also have no right to communicate it to the patient who desperately needs that abortion. I don't get paid for my feelings, I get paid for my skills. . . . I began

to do abortions in larger numbers at the time of my divorce when I needed money. But I also believe in the woman's right to control her biological destiny."

John Szenes, M.D., believes in the woman's right to abortion and that is his primary consideration. However, he does admit the saline abortion takes some getting used to: "All of a sudden one noticed that at the time of the saline infusion there was a lot of activity in the uterus. That's not fluid currents. That's obviously the fetus being distressed by swallowing the concentrated salt solution and kicking violently and that's, to all intents and purposes, the death trauma." And he then adds: "So I can imagine, if I had started doing 24-weekers right off the bat, I would have had much greater conflict in my own mind whether this is tantamount to murder."

At the Beth Israel Hospital, in Denver, Colorado, a doctor did an abortion by injecting birth hormones to induce premature birth. Hours later the baby was delivered live, cried, and some time later died. The doctor ordered no life-sustaining measures. Nurses were upset, one resigned. Concerning a similar situation, one Denver obstetrician said: "Trying to save the fetus when you're performing an abortion is like sending an ambulance to a firing squad. The whole intent of an abortion—on the part of both the woman and the doctor—is to see that the fetus doesn't survive."

Many nurses have had traumatic experiences, especially with saline abortions. One

investigator reported on the testimony of a head nurse in a gynecological ward where large numbers of such abortions were performed. "She recounted many horrifying situations," he said, "which included babies born alive, for whom they had no facilities whatsoever in the hospital. She personally witnessed one physician who happened to be present at the birth of a live born baby, who subsequently drowned the baby in a bucket of formalin." Another report tells of babies aborted at eight months, and says aborted babies able to live at six months "are killed by doctors through injections or suffocating them in vinyl bags." The babies are viable, but they are killed.

The claim is often made that the pregnant woman should have control of her own body, but the fetus is not her body. It is not an appendage or part such as the appendix or gallbladder the removal of which has been likened to the removal of the fetus from the mother's body. Dr. A. W. Liley, world-renowned research professor of fetal physiology, said: "Biologically, at no stage can we subscribe to the view that the foetus is a mere appendage of the mother. Genetically, mother and baby are separate individuals from conception." He continues with a description of the activities of the fetus, as follows:

"We know that he moves with a delightful easy grace in his buoyant world, that foetal comfort determines foetal position. He is responsive to pain and touch and cold and sound and light. He drinks his amniotic fluid, more if it is artificially sweetened, less if it is given an unpleasant taste. He gets hiccups and sucks his thumb. He wakes and sleeps. He gets bored with repetitive signals but can be taught to be alerted by a first signal for a second different one. And finally he determines his birthday, for unquestionably the onset of labour is a unilateral decision of the foetus. . . . This is also the foetus whose existence and identity must be

so callously ignored or energetically denied by advocates of abortion."

After reviewing such amazing abilities of the fetus in the womb, Dr. Liley says: "You would think this knowledge would bring a new respect for the unborn. Instead some now are hellbent on his destruction—just when he had achieved some physical and emotional identity." Why has the abortion movement made such headway in spite of the obvious humanness of the baby? Dr. Liley's answer: "The unborn is small, naked, nameless and voiceless. It is his defenselessness that makes him such a convenient victim. He has not yet reached the age of social significance and he cannot strike back for himself."

Many doctors refuse to do abortions. One doctor said: "If there are a few doctors who seem to do more, it's because some of us are still struggling with our

If a mother ends the life of her baby a few days before its birth, it's legal. If she does it a day after its birth, it's murder

Hippocratic (oath)." Concerning abortion the oath states: "I will give no deadly medicine to any one if asked nor suggest any such counsel, and in like manner I will not give to a woman a pessary to produce abortion."

Dramatic changes have taken place on the legal front over abortions. English common law considered abortion a crime—a lesser crime in the first half of pregnancy because the baby had not yet stirred, hence was not considered alive. But with the mother's "feeling life" during the second half, the baby was alive and abortion thereafter was a felony, murder. These laws were applied throughout the early United States until after the Civil War.

Conception, the union of sperm and ovum, was first accurately described by a German scientist in 1827. Thereafter it was appreciated that life began at conception rather than at "quicken," as previously believed. After the Civil War the new American Medical Association sent its scientists to testify before committees and state legislatures, informing them that life began at the time of the egg's fertilization. In response to this new information, every state in the union during the 1870's and early 1880's passed new laws making abortion a felony from the time of conception. AMA testimony: "We were dealing with nothing less than human life."

Times have changed. These so-called "archaic anti-abortion laws of the 19th century" have been wiped from the legal slate in the United States. In 1967 Colorado passed a permissive abortion law. In the next four years 15 other states followed suit. During the next three years 33 states rejected the permissive laws. But the struggle of the pro-life forces was defeated with the U.S. Supreme Court's decision in 1973 to allow abortion-on-demand during the first three months of pregnancy, during the next three months with certain restrictions for the care of the mother, and anytime before birth for the mother's health.

Health? The Court's decision in *Doe v. Bolton* defined it: "all factors, physical, emotional, psychological, familial, and the woman's age, relevant to the well being of the patient." Another of the Court's cases, *Roe v. Wade*, enlarged upon the definition: "Maternity or additional offspring may force upon the woman a distressful life and future. Psychological harm may be eminent, mental and physical health may be taxed by child care. When there is distress for all concerned associated with the unwanted child, and when

there is a problem of bringing a child into a family already unable, psychologically or otherwise, to care for it."

A concurring opinion added to these "health" reasons the discomforts of preg-

It is his defenselessness that makes him such a convenient victim

nancy, the pain, loss of income, abandoning educational plans, forgoing a career. In short, any reason the mother might advance could end the pregnancy at any time before birth.

This changed thinking is illustrated by International Planned Parenthood. Founded by Margaret Sanger, who strongly opposed abortion, it was meant to promote the use of contraceptives and thereby prevent the need for abortions. In 1964 Planned Parenthood stated: "An abortion kills the life of a baby after it has begun. It is dangerous to your life and health. It may make you sterile so that when you want a child you cannot have it. Birth control merely postpones the beginning of life."

In a dramatic about-face, today Planned Parenthood promotes abortion as a means of population control. It also sponsored the case that resulted in the Supreme Court's decision permitting a minor to abort without her parents' consent. Its former statement, "An abortion kills the life of a baby," no longer appears in its literature. However, that truth does appear in an editorial in the September 1970 *California Medical Journal*:

"The reverence of each and every human life has been the keystone of western medicine, and is the ethic which has caused physicians to try to preserve, protect, repair, prolong,

and enhance every human life. Since the old ethic has not been fully displaced, it has been necessary to separate the idea of abortion from the idea of killing which continues to be socially abhorrent. The result has been the curious avoidance of the scientific fact, which everyone knows, that human life begins at conception, and is continuous, whether intra- or extra-uterine, until death."

Another problem that abortion was supposed to alleviate is that of battered children. The theory was that unwanted children were abused, and preventing their birth would end the abuse. Facts disprove the theory. Child battering has greatly increased, as the following press report discloses: "Looser abortion laws do not result in fewer battered children—a five-year study by Dr. Edward Lenoski, professor of pediatrics at the University of Southern California found that following the passage of 'abortion on demand', cruel infanticide and child battering increased three-fold—a logical result of the concept that 'life is cheap.'" Instead of remedying the battering of children, abortion has added to this the battering of millions of babies in the womb.

The verbal gymnastics of the courts in their abortion decisions make them fall on their faces in certain criminal trials. Two

**"I will not give to a woman
a pessary to produce
abortion"**
-Hippocratic Oath

gunmen fired shots at a car carrying a pregnant woman. One bullet killed the fetus. The woman was not fatally hurt, but the men received sentences up to life for the death of the fetus. In another case, Winfield Anderson shot a woman pregnant with twin sons. By cesarean the twins were

removed. One, struck by a bullet, died after three-and-a-half hours; the other died in 15 hours. The mother survived. The defense attorney said the fetuses were "nonpersons," but Judge Wingate, Jr., ruled that fetuses wounded by a blow on the mother were, if they later died, murder victims. The jury convicted Anderson on two counts of murder.

A paradox develops. If a mother orders the killing of her viable fetus, it's humanitarian. If the fetus is killed during a crime, it's murder. If a mother ends the life of her baby a few days before its birth because she's distressed that it will be a burden, it's legal. If she does it a day after its birth because it's a burden, it's murder.

How does Jehovah God view all of this? Exodus 21:22, 23 states: "In case men should struggle with each other and they really hurt a pregnant woman and her children do come out but no fatal accident occurs, he is to have damages imposed upon him . . . But if a fatal accident should occur, then you must give soul for soul [life]." The original Hebrew does not limit the injury to the mother, but includes the baby also, as careful scholarship reveals.*

Other ancient codes take the same view. Laws that protect the unborn existed centuries before Christ. The Hammurabic code did, and also ancient codes of the Sumerians, the Assyrians, the Hittites and the Persians prohibited the striking of a woman that caused the death of her unborn child. These laws were punitive and also involved compensation.

In a fear-inspiring way children are made in the womb, and they are "an inheritance from Jehovah." As for our use of this inheritance, "each of us will render an account for himself to God."—Ps. 127: 3; Rom. 14:12.

* For a detailed discussion of this text, please see the Watchtower magazine, August 1, 1977, pages 478-480.

Diary of an Unborn Child

- OCTOBER 5:** Today my life began. My parents do not know it yet, but it is I already. And I am to be a girl. I shall have blond hair and blue eyes. Just about everything is settled though, even the fact that I shall love flowers.
- OCTOBER 19:** Some say that I am not a real person yet, that only my mother exists. But I am a real person, just as a small crumb of bread is yet truly bread. My mother is. And I am.
- OCTOBER 23:** My mouth is just beginning to open now. Just think, in a year or so I shall be laughing and later talking. I know what my first word will be: MAMA.
- OCTOBER 25:** My heart began to beat today all by itself. From now on it shall gently beat for the rest of my life without ever stopping to rest! And after many years it will tire. It will stop, and then I shall die.
- NOVEMBER 2:** I am growing a bit every day. My arms and legs are beginning to take shape. But I have to wait a long time yet before those little legs will raise me to my mother's arms, before these little arms will be able to gather flowers and embrace my father.
- NOVEMBER 12:** Tiny fingers are beginning to form on my hands. Funny how small they are! I'll be able to stroke my mother's hair with them.
- NOVEMBER 20:** It wasn't until today that the doctor told mom that I am living here under her heart. Oh, how happy she must be! Are you happy, mom?
- NOVEMBER 25:** My mom and dad are probably thinking about a name for me. But they don't even know that I am a little girl. I want to be called Kathy. I am getting so big already.
- DECEMBER 10:** My hair is growing. It is smooth and bright and shiny. I wonder what kind of hair mom has?
- DECEMBER 13:** I am just about able to see. It is dark around me. When mom brings me into the world it will be full of sunshine and flowers. But what I want more than anything is to see my mom. How do you look, mom?
- DECEMBER 24:** I wonder if mom hears the whispering of my heart? Some children come into the world a little sick. But my heart is strong and healthy. It beats so evenly: tup-tup, tup-tup. You'll have a healthy little daughter, mom!
- DECEMBER 28:** Today my mother killed me.

—Anonymous

Catholic Teacher Draws Papal Fire

By "Awake!" correspondent
in Germany

SELDOM has a religious subject commanded newspaper space for so long, and captured the attention of Germans as much, as the announcement last December that the Vatican had revoked Hans Küng's permission to teach Catholic theology at Germany's University of Tübingen. Widespread and highly emotional expressions of protest—but also of support—quickly followed.

One Catholic weekly called "the condemnation of this world famous, controversial, aggressive, keen-minded theologian" a "profound shock" that would be felt "throughout the entire Western religious world." What had caused the Vatican to take such a step?

A Controversy of Long Standing

Hans Küng, born in Switzerland in 1928, studied in Rome and was ordained to the priesthood in 1954. As early as 1957 he caused raised eyebrows among orthodox Catholics with the thesis he wrote for his Doctor of Theology degree. In it he argued that the doctrine of Christian justification as taught by Karl Barth, one of Europe's leading 20th-century Protestant theologians, was compatible with Catholic teaching.

In 1967 Küng, now professor of dogmatics and ecumenical theology at Tü-



bingen University, published a book entitled "The Church." His unorthodox views were quickly rejected by Vatican officials, who invited him to Rome to have the matter clarified. Küng refused to go, claiming that the Hierarchy's authoritarian manner would prevent a fair and open hearing. Three years later he published the book *Infallible? An Inquiry*, timed to coincide with the 100th anniversary of the adoption of the dogma of papal infallibility, a dogma Küng claimed was open to question.

Meanwhile his books were selling well. New ones published in 1974 and 1978 became best-sellers. Some thought the controversy showed signs of waning, when, in his 1978 book, Küng dealt with a "safe" subject: proofs for the existence of God. But in the spring of 1979 he published a book entitled "The Church—Remaining in the Truth?" and also wrote the introduction to an anti-Vatican book authored by August Hasler, *How the Pope Became Infallible*. The slumbering flames of religious controversy flared anew, this time higher than before.

So the Vatican's ruling, although long in coming, was not totally unexpected. It found that "Professor Hans Küng, in his writing, has departed from the integral truth of Roman Catholic faith, and there-

fore he can no longer be considered a Catholic theologian or function as such in a teaching role."

What did this actually mean? The action stopped far short of excommunication, and even permitted Küng to remain a priest. But it did take away his permission to teach Catholic theology and to train men for the priesthood.

On What Authority Did the Church Act?

In 1933 a concordat between Germany and the Vatican was signed by Eugenio Cardinal Pacelli (who later became Pope Pius XII) and Hitler's vice-chancellor, Franz von Papen. This concordat granted the Catholic Church in Germany certain rights and favors in exchange for certain concessions made by the Church to the government. In 1957 the German Federal Constitutional Court ruled that the concordat was still binding under present German law.

Section 22 provides for "the designation of teachers of the Catholic religion . . . by mutual agreement between the local bishop and the local state government." This means that no one can be appointed to teach Catholic theology without Church approval, not even at a state-run school.

This raises the interesting question: Can Küng continue to teach theology as a member of the university's theological faculty, although not officially representing the Church? Or must the university transfer him to another department to teach a nonreligious subject?

The members of Tübingen's Catholic theological faculty had come out in overwhelming support of Küng, but in February called upon him to resign from the theological staff. Küng thereafter canceled his classes, but said he was "saddened that they [were] just now taking this action" after supporting him at the beginning.

Küng's View

Küng denies that he is a disgruntled heretic—indeed, the Church has stopped short of accusing him of heresy. At present he neither rejects the Church with its papacy nor tries to turn Catholics away from Catholicism. To the contrary. In a letter to Pope Paul VI he acknowledged his "criticism of our Church," but called it "a criticism based on love." The basis for his criticism, he claims, is Pope John XXIII's wish, expressed at the 1962 Ecumenical Council Vatican II, "to let some fresh air into the church."

"Progressive" Catholics have been quick to support Küng's suggestions for reform on such subjects as birth control, women in the priesthood and priest celibacy. Also by questioning such doctrines as papal infallibility, the doctrine that Christ and God are "one in substance" and the doctrine of the virgin birth, he has touched on subjects many Catholics find difficult to believe. His call for a more democratic form of Church government, allowing bishops a greater share in shaping Church policy, has found widespread support.

Küng says he has never claimed to be an official spokesman for the Hierarchy. Rather, "as a Catholic theologian inside the Church" he sees himself as a spokesman "for the legitimate concerns of numerous Catholics." He asks: "When will the representatives of the financially so-well-oiled and perfectly administrated Church apparatus finally recognize in the silent departure of hundreds of thousands of Catholics . . . an alarm signal calling for critical self-examination?"

The Church's View

Munich's Joseph Cardinal Ratzinger explained the Church's view, saying: "Everyone has the right to develop his own ideas

and to express them . . . But not everyone has the right to say that his ideas are an expression of what the Catholic Church teaches . . . [Küng] must be permitted to investigate and to study. The Church must be permitted to reject him as an interpreter of its teachings."

The Church says that a person of Küng's prominence dare not be permitted to challenge its authority openly. His calling Church dogmas into question has created confusion and stirred up unrest among Catholics. Action, some feel, was long overdue. *Time* magazine quoted one Vatican official as saying privately: "John Paul II is cracking down, and he is picking the big ones first." Other Church "embarrassments," such as the Netherlands' theologians Schillebeeckx and Schoonenberg, or Brazil's theology professor Leonardo Bogg, may be next.

Who Is Right—The Church or Küng?

In all honesty it must be admitted that, viewed from their standpoint, both have certain valid arguments. But two things are disturbing: the unchristian way in which they have carried on their controversy, and their failure to appeal to solid Scriptural evidence in support of their positions.

The Catholic weekly *Christ in der Gegenwart* (The Contemporary Christian) under the heading "Mistakes on Both Sides" said that the Church had made "regrettable mistakes" in handling the matter, but added: "To a certain extent Professor Küng, too, must be blamed . . . His cutting language has helped destroy brotherly confidence."

The *Hamburger Abendblatt* was more blunt: "It was no moderate dispute among holy ones, not one characterized by persuasion, by listening, by a striving for truth in the spirit of love. It was one characterized by beating and stabbing."

Is this what a person would normally expect of a Church claiming to be based upon Christ, "who, when he was reviled, did not revile" (1 Pet. 2:23, *Douay*), or of one of its most distinguished theologians, whose "criticism," he claims, is "based on love"?

It is apparent that the Church, confronted with divisive elements within its ranks, is trying hard to uphold its authority. Küng is fighting hard to remodel the Church into what he thinks it should be.

But both have failed. In what respect? In the hundreds of pages of material presented in defense of their individual stands, solid Scriptural argumentation has been forced to take a backseat to Church tradition, popular opinion, human wisdom and philosophical hairsplitting. This should never be.

If you as a sincere Catholic—or Protestant for that matter—are sometimes unsure as to what you should believe, if you are "tossed to and fro and carried about with every wind of doctrine," so to speak, then turn to the Bible for true guidance. Read it, study it, accept help from persons willing to aid you in understanding it. The Bible, and the Bible alone, is "inspired of God" and "is profitable to teach, to reprove, to correct, to instruct in justice." —Eph. 4:14; 2 Tim. 3:16, *Douay*.

"Now I exhort you, brothers, through the name of our Lord Jesus Christ that you should all speak in agreement, and that there should not be divisions among you, but that you may be fitly united in the same mind and in the same line of thought."—1 Cor. 1:10.



"IT'S THE LAW" IN A MIXED-UP WORLD

A man in Wales did not have to pay for over 60 parking tickets amounting to almost \$900 (U.S.), because the car was registered in the name of his six-year-old son, Jonathan. The Road Traffic Act says that only the registered owner is liable for parking violations, and also presumes that no child under 10 years of age can be guilty of any offense. Case dismissed!

A Florida bank robber sued the arresting officers for return of his loot. A technical error in writing up the case against the robber caused the judge to throw it out rather than retry him, since he was already in jail for other crimes. The lawbook-reading robber found that the money could not be taken from an "innocent" man, and sued for its return. In the meantime, the loot had been returned to the bank. A judge ordered the officers to answer the suit. "Technically, according to the FBI," says the Associated Press report, "the two policemen would have to pay the money out of their own pockets."

An Italian court ruled that a motorist who injured a prostitute in an auto accident must pay her \$4,800 (U.S.). The 48-year-old woman lost 70 days of "work," and, according to doctors, her "professional capacity" was reduced by 15 percent.

The United States Court of Appeals for the Sixth Circuit recently reversed the convictions of nine persons accused of "racketeering." The

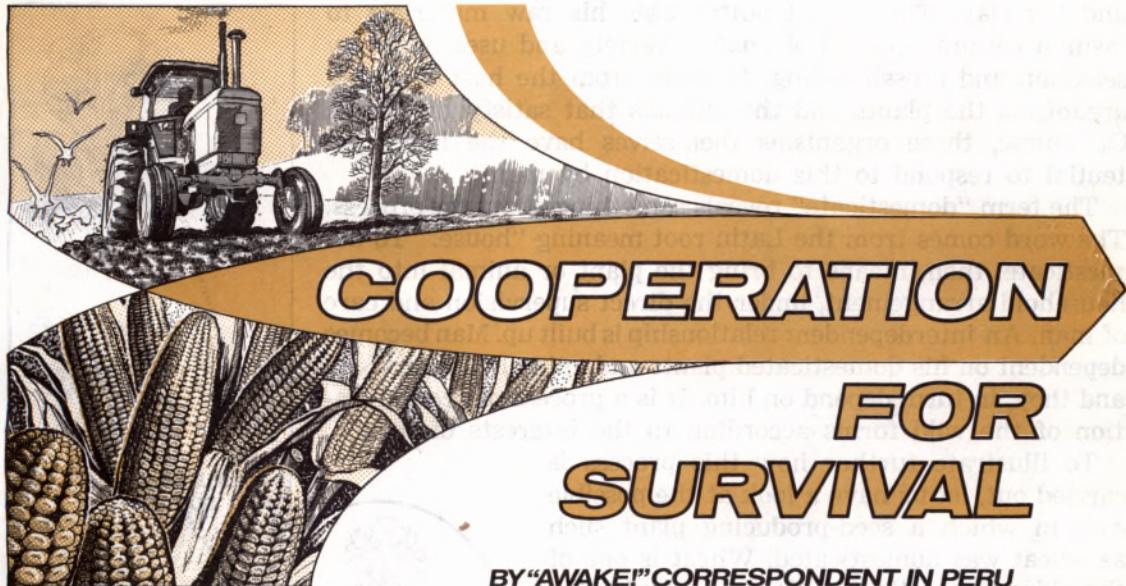
accused appealed on the grounds that the law was designed to stop infiltration of legitimate businesses by racketeers. They said that they "merely" committed racketeering offenses apart from legitimate businesses and therefore did not come under the law. The court agreed!

A New York Supreme Court justice ruled against an insurance company, saying that it must pay for a man's sex-change operation. The judge made the ruling even though a doctor filed an affidavit with the court stating that "when you operate on this type of patient you have not cured their 'disease,' rather you have responded to their demand that their body be altered to conform to their wishes. The disturbance in function is in the brain." The judge asserted that the doctor lacked expertise on transsexualism.

Similarly, a U.S. district judge in Iowa awarded \$3,500 in medical bills and damages to be paid by the government medicaid program for another sex-change operation. Medicaid officials had contended that such operations are cosmetic surgery not covered by their program. Interestingly, Baltimore's prestigious Johns Hopkins University Hospital recently stopped doing sex-change operations because follow-up studies found that so-called "transsexuals" are as well or better off without the surgery.

A new criminal code in New Jersey requires that authorities notify a thief of his victim's claim to stolen property and gives him 10 days to challenge that claim. Property immediately needed by victims such as stolen cars, credentials, keys, purses and other items that formerly were returned at once is now held at least 10 days and perhaps much longer if the suspect challenges the victim's claim.

Such examples of the law's capriciousness often seem to bear out this observation in the "Boston Globe": "Society as a whole has adopted the judicial process as its moral yardstick and forfeited common sense and personal responsibility. Legal is not necessarily synonymous with good." Of course, rule of law is necessary, but, as with all man's endeavors, the human element seems to find a way to distort it.



BY "AWAKE!" CORRESPONDENT IN PERU

DARWINIAN evolutionary theory maintains that all forms of life are in a bloody, competitive struggle for survival. Many biologists and other scientists see cooperation, union and harmony among various forms of life as the key to survival. *Time* magazine, on reviewing a recent book by Dr. Lewis Thomas, biologist and president of the Sloan-Kettering Cancer Center of New York, states: "Thomas argues that the overwhelming tendency in nature is toward symbiosis, union, harmony. The post-Darwinian view of life as a constant, murderous struggle . . . do[es] not match the facts that Thomas has seen."

A close look at our present sources of food convinces us that cooperation and not competition is the way of survival. Just 30 major crops and seven animal sources of meat supply us with almost all our nutritional needs. In every case, the hundreds of millions of metric tons of food are provided by domesticated plants and animals that are in a unique, harmonious relationship with man. Without these faithful coworkers, the present population of over 4,000 million people could not sur-

vive. Inversely, the majority of domesticated plants and animals would likewise perish without man's constant care and attention.

Plant and Animal Domestication

From the very beginning of human history man could see the qualities and the possibilities of certain plants and animals as sources of food. In fact, the Bible states that the Creator set the example for man by becoming the first Agriculturist. He planted a beautiful garden with all the necessary variety to provide the first human pair with their food. (Gen. 2:8, 9) Also, in the first part of the Bible, mention is made of domestic animals for man's use. It was the Creator's will for man to exercise dominion over the lower forms of life and to use them wisely to provide for his needs. Intelligently, man could use and cooperate with all the other forms of life on the earth to ensure his own survival as well as that of the endless variety of plant and animal life.

Man's relationship to the lower forms of life can be likened to that of the potter

and his clay. The skilled potter uses his raw materials to fashion ceramic vessels of endless variety and uses. Man, by selection and crossbreeding, fashions from the host of living organisms the plants and the animals that satisfy his needs. Of course, these organisms themselves have the inner potential to respond to this domestication by man.

The term "domesticate" reveals something about the process. The word comes from the Latin root meaning "house." To domesticate, then, means to bring the plant or animal into the household arrangement, under the direct supervision and care of man. An interdependent relationship is built up. Man becomes dependent on his domesticated plants and animals for survival, and they, in turn, depend on him. It is a process of reorganization of the wild forms according to the interests of man.

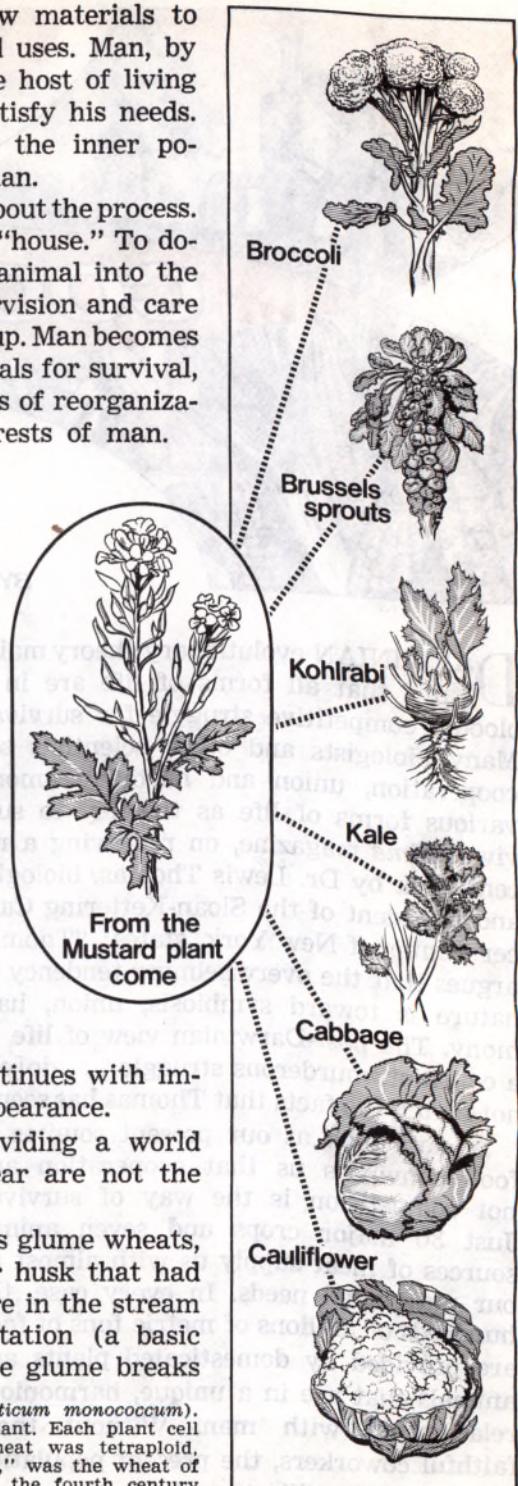
To illustrate further how this process is carried out, let us have a look at the possible way in which a seed-producing plant such as wheat was domesticated. Wheat is one of the oldest domesticated plants. Undoubtedly, man could see the value of the edible seeds of the wild forebears of wheat. He harvested them and then decided to plant and cultivate them to facilitate harvesting and to increase production. That very first step began a selection process that led to domestication.

New varieties became dependent on its cultivators for survival. However, cultivated plants are not entirely isolated from wild varieties and occasionally crossbreeding occurs, sometimes improving the quality of the plant. Man, ever on the alert to improve his domesticated provider, selects the improved varieties and sows them. And the process continues with improved varieties constantly making their appearance.

The varieties of wheat that are now providing a world crop of nearly 400 million metric tons a year are not the same varieties sown in Biblical times.*

Those ancient wheats were what is known as glume wheats, that is, they had an inner shell-like glume or husk that had to be broken open after harvesting. Somewhere in the stream of time, the emmer wheat underwent a mutation (a basic change in its genetic composition) so that the glume breaks

* An ancient cultivated wheat was called "einkorn" (*triticum monococcum*). Cytological (cell) examination reveals that it is a diploid plant. Each plant cell contains seven pairs of chromosomes. Another ancient wheat was tetraploid, having 14 pairs of chromosomes. This wheat, called "emmer," was the wheat of Egypt until after the conquest by Alexander the Great in the fourth century B.C.E., when it was replaced by a new variety of bread wheat.



open easily when the spike is harvested. At the same time the spike became tougher, holding the seeds in place until harvesttime. This is a variety of wheat with 21 chromosomes, the extra chromosomes evidently coming from a crossbreeding with wild goat grass. Varieties of this bread wheat are the present major producers of the world wheat crop.

Genetic Potential

The marvelous ability of plants and animals to respond to intelligent direction gives witness to the genetic potential that each life form has within itself. To illustrate: the wild mustard plant (*Brassica oleracea*) has produced, under man's direction, six different domesticated plants that adorn our tables and please our palates. In each case, on domesticating, certain parts of the original plant were selected and emphasized. From the original plant we have cabbage (developed terminal bud), the cauliflower (the flower part), the kohlrabi (the stem), brussels sprouts (lateral buds), broccoli (stems and flowers) and kale (leaves). Kale is the plant that most resembles the original mustard plant.

As knowledge of biology increases, man is able to improve the selection and better direct the formation of different new strains of wheat, rice, corn, and so forth. This has produced a "green revolution." New varieties are producing 10-fold more than their progenitors. Still there is a danger: too much dependency on just a few varieties of plants.

Potatoes are an example of this. Potatoes were domesticated in one of the eight general centers or geographic areas of domestication. They were domesticated some 1,800 years ago along the west coast of South America in the Andean Highlands, where today over 150 varieties are found. With the conquest of South America, the Spanish invaders took the potato back to Europe, where it became acclimatized.

With time, the potato was carried to Ireland, where it flourished. The Irish became dependent on this one main crop as their principal source of food. The result? Famine, when an unexpected plant disease, potato blight, killed off the crop in 1845-46, forcing many of the Irish to migrate to other lands.

Man has domesticated many plants and animals for other purposes besides food. Look at the horses, cats, dogs and aquarium fish plus the unending varieties of flowers. Many of these have been domesticated to satisfy man's love of beauty and others to alleviate his work load. The process is continuing; new varieties appear yearly. This year a new variety of garden peas has appeared, whose pods are just as palatable as the mature peas, so that, for many, the food value of the common pea will be doubled.

All the multiform varieties of animals, fish, birds and plants that domestication has produced are possible because within the genetic makeup of each life form (kind) there are certain hidden or recessive genes (hereditary characteristics) that can be brought out and used to develop new varieties. While it is true that new varieties can be developed, new kinds of life cannot be made. When a species becomes extinct, its gene pool is lost and there is no human way to recover it. Man, as the highest form of life on earth, charged with caring for the lower forms of life, has a heavy responsibility, not to destroy but to preserve.

Life on earth, then, is not designed for murderous competition, but instead for harmonious working together. Modern man has recently begun to realize this and to some extent is trying to preserve the earth's ecology. However, in God's new order, the cooperation and harmony of all creation will reach its maximum expression.

CREATION REFLECTS DIVINE WISDOM



How do swarms of bees who break off from their original colonies find a new home? "Scouts fly out in search of suitable cavities in which to establish a new hive," answers "Natural History" magazine. (June/July 1979, p. 75) "The cavity must be chosen with great care since its ability to keep its occupants warm and dry during the long, cold winter is crucial to the colony's survival. Scouts return and advertise what they have found by means of the same dance used to communicate food location. At first, several potential sites may be reported, but soon, usually within a day or two, all the dances will indicate just one location." What brings the scouts to a "meeting of the minds" on this vital matter? Researchers have learned that "each scout advertises its find with a degree of enthusiasm that reflects the site's quality as a potential dwelling," says "Natural History." However, "now the scout will stop and watch dances indicating other sites. It will then fly out and visit them, perhaps also re-inspecting its own discovery, then return to the swarm and dance for the best one. The bee has sampled the available locations, compared them, and come to a decision. When virtually all the scouts agree—that is, when all of the dancing indicates the same spot—the swarm will then be roused and led to the chosen cavity."



Recently, microbiologists have discovered bacteria that contain within their microscopic bodies chains of magnetic particles.

They speculate that these particles form built-in "compasses" that may help the minute organisms to find which way is down, in order to

locate the sediments necessary for their existence. What is astounding about the tiny particles is that if they were only slightly smaller or larger, they would not function as an efficient "compass." Richard B. Frankel of the National Magnet Laboratory at the Massachusetts Institute of Technology says that "the bacteria have solved an interesting problem in physics by producing particles of magnetite of just the right size for a compass, of dimension 500 angstroms [.000002 inch or .000005 cm]." Taking up the theme of assigning such genius to the lowly bacteria, Harvard evolutionary biologist Stephen Jay Gould calls it "an organism that builds an exquisite machine within its own body." And his article in Britain's "New Scientist" magazine is titled "A Natural Precision Designer" with the subtitle "Bacteria with built-in magnets reveal biology's meticulous engineering." Who truly was the designer and engineer? Biology? The bacteria? Or an intelligent, all-wise Creator? You be the judge.



Is the fisherman's long-held assumption that the worm wiggling on the fishhook feels no pain correct? Swedish scientists have found that, like humans and animals, worms produce chemicals known to help the enduring of pain. Since these substances are present in the earthworm's "brain," it raises the question whether worms do feel that hook after all. Of course, the type and degree of any such pain is also a moot question.

"understanding the world"



The book "Dieu existe? Oui." (Does God Exist? Yes.) gives this opinion by naturalist Professor Grassé: "A world without God is an absurdity. Man without God loses all signification; maybe he is not even a man anymore. In any case, a man without God is incomplete. I believe that a researcher or scientist who does not accept God is depriving himself of a comprehension of the universe. God is the only key to understanding the world." —Compare Proverbs 1:7.

Watchtower Bible School of GILEAD



25

In the list below, rows are numbered from front to back and names are listed from left to right in each row.

- (1) Gomes, M.; Quinones, N.; Sullenger, M.; Jacek, K.; Debnath, T.; Ellis, N.; Bryne, S.; Boseovski, D.; Debnath, M.; (2) Lobinoff, G.; Manning, H.; Haynes, J.; Goutam, M.; Boyce, S.; Berkeley, G.; Davidsson, M.; Shirshac, P.; Watson, A.; (3) Lobinoff, G.; Frewin, K.; Boseovski, P.; Cameron, C.; Frewin, M.; Halle, L.; White, L.; Watson, M.; (4) Schneider, S.; Baker, C.; van Heerde, J.; Schneider, R.; Goutam, K.; Jacek, D.; Boyce, G.; Berkeley, A.; Manning, F.; (5) Davidsson, K.; Haynes, I.; Byrne, D.; Baker, G.; Mackie, N.; Ellis, L.; Ives, M.; Sen, R.; White, R.

Appreciative Gilead Students Graduate

"I WOULDN'T have missed it for anything!" "The happiest time in my life!"

Such expressions were made by appreciative students of the 68th class of the Watchtower Bible School of Gilead. They were talking about the training they had received to prepare them to be missionaries. The climax to their happy, five-month course of training came on Sunday, March 9, 1980, the graduation being held on that date at Jehovah's Witnesses Assembly Hall, Long Island City, New York.

Why were the 45 graduating students so enthusiastic about their course of study? What motivated them to volunteer to be missionaries?

One young woman said: "I think I really learned more in the five months at Gilead about being an effective teacher than in the four years at the university. The quality of education at Gilead really impressed me." Another student called the course "very realistic and very practical." Further explaining their enthusiasm, a young man stated: "I appreciated the general coverage of the Scriptures. The underlying thing that I appreciated most was the points on building a better relationship with Jehovah and improving our Christian personality. In anything we studied, this was also highlighted."

In a letter read to the audience, the class expressed appreciation, saying:

"The study of the development of truth in chronological order has greatly enhanced our appreciation of the Scriptures. We have delved into the context of every Bible book and found that every verse was written for a specific purpose to apply both then and now. Thus, this revealed fur-

ther to us that our God, Jehovah, is not a God of generalities, but has provided specific written instruction for his people living at any time. And Gilead has helped us to learn how to do beneficial research and how to present it in a practical way to those we are going to meet in our assignments.

"As the first class to enjoy the fine new classrooms and library facilities, we indeed feel privileged. We are certain that future Gilead students will likewise enjoy the fine atmosphere, which contributes so much to unified study and spiritual association among the class members. . . .

"The instruction itself has been of a very high quality and has well equipped us to carry the curative balm of Jehovah's message of comfort to the nations."

The 45 students had come from nine countries, and now they were assigned to do missionary work in 11 lands. These included such countries as Ecuador, Colombia, Bolivia, Japan, Central African Republic, Ghana, Kenya, the Philippine Republic and El Salvador.

In addition to their being from various lands, the students had also come from varied backgrounds. One of them from California had been a hippie and had sold drugs before learning God's truth. He said: "Another friend and I were attempting to build a boat to sail to the South Pacific. We wanted to go to paradise. We had not gotten very far with building the boat when Jehovah's Witnesses called at our door. They saw our desire and asked: 'How would you like to have Paradise come to you?' We said, 'That would be fine. Show us what's necessary!' We had a Bible study, and in four months we both took

our stand for the Bible's truth, with its promise of Paradise to be restored to the earth by God's kingdom."—Luke 23:43.

A student from India had been a good soccer player, and, in fact, was well on his way to represent India in the 1956 Olympics. His life's dream was shattered by a leg injury. But he soon found something far more satisfying than the Olympics; he found Bible truth and now is able to spend full time sharing it with others.

Some of the students related that they had been searching for God's truth for years. One young woman from New Zealand said: "I was always interested in finding the truth even as a child. After I left New Zealand and went to Australia, I was still looking for the truth, so I investigated different religions." Disappointed after going to various church groups, she prayed to God for help to find his truth. Right at that time she was going to England by ship, and she says: "I got a very quick response to my prayers." How so? On this ship she met one of Jehovah's Witnesses and she studied the Bible aboard every day with the help of the book *The Truth That Leads to Eternal Life*. By the time she got to London, she knew that at last she had found God's truth.

What motivates persons to volunteer for missionary training at Gilead? One student said: "I always had a desire to help people. I really enjoy teaching." Another said: "When I was a child, I always wanted to be a missionary. It was really the goal of wanting to serve God, and missionary service seemed to be the most useful way of doing it." A young man from England said: "Ever since I had read a *Yearbook of Jehovah's Witnesses* and learned about their missionary work, that is what I wanted to do. Reading the experiences of the missionaries was a great encouragement to me."

On graduation morning eight members of the headquarters staff of Jehovah's

Witnesses gave parting counsel to the students, and then Chairman J. E. Barr handed them their diplomas.

In the afternoon, a special program prepared by the graduates was presented as "one of the unwritten lessons of Gilead—lessons in people." While united in worship and purpose, they demonstrated the awkward, sometimes humorous differences in language, music, clothing, foods and habits of each of their cultures, providing the lesson that unity is not necessarily uniformity.

They followed this by staging two Bible dramas, the first based on Proverbs, chapters one through six; and the second, on Ezra, chapters three through five. Through a series of modern-day skits, the first drama demonstrated how godly wisdom "calls out," overcoming difficulties in rearing children and bridging communication gaps between young and old. An excellent self-scrutiny was made in the second drama, "Set Your Heart upon Your Ways." (Hag. 1:7) The subtle obstacles that delayed the rebuilding of Jehovah's temple following the return of the Jews to Jerusalem in 537 B.C.E. were shown to be the same hurdles often facing zealous Christians in their activity today.

The audience of 2,047 at the assembly hall expressed their appreciation by vigorous applause. It was a day for Gilead's 68th class to remember.

In Future Issues

- **Will Mankind Destroy Itself?**
 - **The Modern "Liberation" of Homosexuals**
 - **The Growing Terror of Rape**
-

DO YOU REACH OUT TO LONELY PERSONS?

"I LIVE alone, but I'm far from lonely. I have all the friends I want. I like my privacy," wrote a successful retired businesswoman in a letter that appeared in many leading newspapers. She continued: "One evening about 7:30, there was a knock on my door. I wasn't expecting anyone, so I asked who was there. It was a widow who lives on my floor, and with whom I had only a nodding acquaintance. She said she was 'lonely' and didn't know what to do with herself, and asked if she could come in and visit for a while."

"I told her politely but bluntly that I was busy . . . she apologized for bothering me and left. . . . I felt quite proud of myself for not getting trapped by a bore who would probably be difficult to get rid of. The next evening a friend telephoned to ask if I knew the woman in my building who had committed suicide the night before. If you have already guessed that she was the woman who knocked on my door, you are right."

How shocking! The experience illustrates the need to reach out to lonely persons and follow the Bible counsel to "speak consolingly to the depressed souls." (1 Thess. 5:14) But how? What is needed is human compassion, genuine friendship. They need you there. Often your mere presence is of far greater value than your counsel.

One 16-year-old who tried to kill herself by jumping in front of a car said pleadingly: "I didn't really want to die, I just wanted someone to pay attention to me." Her comments show how little is needed to aid some lonely people. Oftentimes a mere word, a few minutes of conversation, something to let them know that you realize they are there, is all that is needed. Do you give of yourself in this way?

Most of us have regular contact with groups of people, either on a daily or on a weekly basis. Here there are opportunities to fellowship and to converse with many different individuals. By seeking out those who appear

shy or backward, you may be able to encourage those that are lonely.

Also, why not include lonely individuals in your moments of relaxation? There may be times when it is convenient to invite them to your home or to share in some social gathering. Have them over, not merely because you feel sympathy for them, but because you realize that these ones have much to contribute if such resources are tapped.

By thus reaching out to others you will be showing a genuine concern for those who are struggling with loneliness. And you will be putting to work in your own life that grand principle of living set out by Jesus Christ when he said: "Just as you want men to do to you, do the same way to them."—Luke 6:31.





Watching the World

World in Danger'

◆ "At the beginning of the 1980s the world community faces much greater dangers than at any time since the Second World War," says a recent report by Europe's Independent Commission on International Development Issues. The commission, headed by former chancellor of the Federal Republic of Germany Willy Brandt, also said that "it is clear that the world economy is now functioning so badly that it damages both the immediate and longer-run interests of all nations." *The Guardian* of London observed that the report's language "is not far from panic," and also notes that "in face of the real perils approaching the only answer has been patchwork and postponement." It then warns: "Brandt's changes need to be immediate. Is there time?"

Sun Power from Ponds

◆ Israel recently began operating a new electrical generating system based on a shallow pool of water. Located at a small community near the south shore of the Dead Sea, the pond develops high temperatures at its bottom as the sun's rays penetrate the water. Instead of the hot water rising, as it would normally, salt dissolved near the bottom

forms a heavy layer that resists convection. Lighter, fresh surface waters insulate the hot, salty water below, which reaches temperatures as high as 80 degrees C (176° F) at this location. The hot water heats a liquid that boils at low temperature to power a turbine-driven generator. The pilot project produces 150 kilowatts of power day and night from a pool only 7,000 square m (1.7 acres) in area and 2.5 m (8 feet) deep. The system is said to be economical and environmentally harmless.

Conservation Caution

◆ In their efforts to conserve precious energy, many homeowners are insulating every wall and ceiling and plugging up every crack to make their homes airtight. However, one such tightly sealed experimental home, whose builders claimed it could be heated with a hair dryer, had a problem. "Without the drafts of fresh outside air typical in most homes," says the report in *Science 80* magazine, "the indoor air went bad." There were "high levels of formaldehyde gas throughout the house," and indoor radioactivity was "more than 100 times the natural outdoor background level." The article also discussed a Scandinavian heat-exchange device that may

allow for air exchange with minimal loss of heat in such homes.

Gambling on Lives

◆ Las Vegas, Nevada, has long been known for gambling. Now some charge that the gambling fever may have moved from the casinos to some employees at a local hospital. "They were alleged to have made bets on how long critically ill patients would live," says the report in the *New York Times*, "and, in some instances, may have acted to hasten the deaths of some of them." An investigation by the district attorney was said to have found evidence of tampering with some patient life-support systems.

Pluto's Proportions

◆ Using a new technique, astronomers recently measured the planet Pluto's diameter for the first time. Pictures taken by the Hale Observatories' 200-inch (5 m) telescope with special enhancement devices indicate that Pluto is from 3,000 to 3,600 km (1,900 to 2,200 miles) across. This is about the size of earth's moon, which is 3,476 km (2,160 miles) in diameter. The report in Britain's *New Scientist* magazine also says that the density of Pluto "turns out to be half that of water (strictly speaking, in the range 0.3 to 0.8—far below the density of 3 expected for solid rock.)"

Nasty Habit

◆ A psychological profile of British schoolchildren indicates that "smoking children are naughty children," according to *New Scientist* magazine. Child smokers who took a standard junior personality questionnaire had a "personality pattern typically found in non-conforming or naughty children, and it resembles that of juvenile delinquents and adult criminals," says the report. "Smoking children's

personality traits indicate that they are attracted by risks, and are already potentially anti-social. . . . It appears to be just one facet of a delinquent personality."

Earthquake Preparations

◆ Japan's undertakers have asked the government to pay for storage of 200,000 coffins in preparation for a possible great earthquake in Tokyo. The report in *The Daily Yomiuri* notes that "some scholars are actually predicting that if an earthquake as severe as the 1923 Great Kanto Earthquake struck Tokyo about 500,000 persons would perish." The undertakers point out that in 1923 about 100,000 persons died, and many bodies had to be burned for lack of coffins. About 2,000 "collapsible" coffins have already been stored by the undertakers' group for this purpose.

Costly Remedy

◆ Surgeons sometimes give blood transfusions to their patients as a form of "safety" insurance. From this standpoint, it is of interest to consider these statistics from *Family Health* magazine: In Japan, "the probability of getting hepatitis along with a blood transfusion is 80 percent. And although the problem is not quite that severe in the United States, Americans still spend \$86 million each year curing themselves of hepatitis contracted through blood transfusions."

Aging? Keep Active!

◆ Those who retire run an 80 percent higher risk of heart attack than those who stay on the job, according to researchers from the Harvard School of Public Health. After completing their study of 568 men, a spokesman for the scientists said their findings indicate that "retirement constitutes an independent risk factor for coronary mortality."

Divorce by Another Name'

◆ In the 10 years from 1968 to 1978, marriage annulments granted annually by American Catholic religious judges grew from 338 to 27,670. Annulments are so common now that "they are sometimes called 'Catholic divorce,'" remarks *Time* magazine. And such separated Catholics remain in good standing in the church. But Pope John Paul recently told the Vatican's marriage tribunal that the psychological pretexts now being accepted by the judges as grounds for annulment apparently "allow divorce, under another name, to be tolerated." A crackdown is expected.

Body Value Up

◆ The minerals in the human body have grown in value by 643 percent during the past 10 years, according to the Health Insurance Institute in the United States. From \$.98, inflation has driven up the price of the body's elementary minerals to \$7.28. However, the value of compounds made from these minerals as they actually appear in the body—such as hemoglobin, hormones, and enzymes—is estimated to be over \$6 million. (See *The Watchtower* 7/15/76, p. 427.)

Back to Biblical Money?

◆ Israel recently issued new money bearing the same name as funds Abraham used almost 4,000 years ago. He paid "four hundred silver shekels current with the merchants" to buy a burial site for his wife. (Gen. 23:15-19) The new shekel's 25-cent value (U.S.) probably makes it worth a lot less than its ancient counterpart, even though it is worth 10 times as much as the old Israeli pound. With annual inflation running well over 100 percent, the pound had become worth only about 2.5 cents. Though the government had hoped for more confidence

in the Biblically named currency, Israelis were "fearful that the new shekels would depreciate as rapidly as the old pounds," reports *Time* magazine. So they "converged on Arab money-changers in Israel to convert the new currency into American dollars, British sterling and even Jordanian dinars."

Smoking Growth Slows

◆ A campaign by the Ministry of Social Services to halt the growth of tobacco use in Greece has had some success. Tobacco consumption in 1979 reportedly increased only about .07 percent, compared to a growth rate of 5 percent in 1977 and 1978. The campaign uses a two-pronged approach: First, it warns people of the dangers of tobacco, and second, it tries to reduce the hazards to nonsmokers from public smoking by others. Smoking is prohibited in public transportation facilities, hospitals and clinics.

Ancient Crete's Human

Sacrifices

◆ Archaeological excavations in Crete near the Temple of Acharnae uncovered the skeleton of a young man said to be the victim of human sacrifice over 3,000 years ago. "This constitutes the first scientific proof of the religious custom of holding human sacrifices in the region of the pre-historic Aegean," claims the Athens *Daily Post*. The skeleton of the youth "was crouching on an altar as if he had just been sacrificed," the report continues. "And what is even more important is the discovery of a brass knife, the knife used for the sacrifice, lying also next to the skeleton."

British Morals Down

◆ Premarital sex in Britain has rapidly become the norm, according to a recent government study. Just 35 percent of

women married between 20 and 25 years ago reported having intercourse before marriage. But, of women married after 1971, more than twice as many (75 percent) admitted they had. Also, 62 percent of unmarried British women now in their forties claim to be virgins, while only 15 percent of single girls aged 23 to 24 could say they had not engaged in sexual relations.

Surgery for Sight

◆ Nearsighted persons who have long worn glasses may be able someday to throw them away if they have a new kind of surgery pioneered in the Soviet Union. There have been 2,000 such operations in the U.S.S.R., with a claimed 94-percent success rate. One

of the first Americans to get the same treatment "shouted for joy and kissed and hugged ophthalmologist Herman Stahl when the doctor removed the bandage from his left eye," reports the *New York Post*. In Moscow, Soviet surgeon Svyatoslav Fyodorov had trained Doctor Stahl and a few American colleagues to make 16 precision cuts in the eye's cornea, which flattens it, refocusing the eye. The operation is said to cost about \$1,500 per eye in the United States.

Best Calculator?

◆ Shi Fengshou of the People's Republic of China reportedly is able to multiply two 10-digit numbers in his head in eight to nine seconds. According to *China Recon-*

structs magazine, as a youth Shi Fengshou kept searching for rules that would allow him to do rapid calculations mentally. Now 24, "he can add, subtract, multiply and divide figures with any number of digits and compute fractions, powers, roots, logarithms and trigonometric functions with only the help of his fingers," claims the magazine. His method is said to enable him often to give the answer to problems before the digits can be entered in an electronic calculator. A recently published book describing his methods may be helpful to Chinese business because, says *China Reconstructs*, "it will be a long time before there will be [an electronic] calculator for widespread use in China."

survives, too, because it is a living legend. She has been told many times that she is "the last of her race." She has been told many times that she is "the last of her race." She has been told many times that she is "the last of her race." She has been told many times that she is "the last of her race."

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Boat Companies

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