RELIGION IN A TECHNOLOGICAL SOCIETY

Not too long ago, the major efforts of men of good will were directed towards brotherhood, i.e., brotherhood between Jew and Christian, Hindu and Moslem, people of diverse faiths, colors and creeds. They recognized the danger of ideological divisiveness -- which, in its own way, is good because of the strength that our common country gains from the different strains fed into it; that this ideological divisiveness might, in the hands of petty people, lead to fanaticism.

Today, the question of the coexistence of different religions is still very important indeed. A look at the daily newspaper of any day will prove that to everyone's satisfaction.

However, the problem of brotherhood insofar as the conflicts between members of different religious communions, has now been transcended by the overarching question of our times: the survival against the common enemy of all of us. I refer to the Frankenstein of technology, that giant whose feet are planted on a launching pad, whose head is in a mushroom cloud, and whose arms flutter in the neighborhood of the cosmos. Science, once believed to be destined to usher in our Utopia, has fathered the single greatest threat to the human race besides which all others fade into pale insignificance: runaway technology.

Recently, a magazine carried an interesting cartoon. It showed two scientists, astronomers, gazing through a large telescope at some distant star which was exploding. One turned to the other and said, "Well, there goes another one where they learned how to make it." That is, indeed the great danger to the lives of all of us. A fourth nation has recently been added to those who "have learned how to make it." Shall the fate of earth be the same as that exploding star?
Basically, the problem I am discussing with you is the problem of Progress. The heyday of the idea of Progress -- that people ought to progress and that they inevitably will -- was concurrent with the rise of modern natural science in the seventeenth to the nineteenth centuries. But regardless of your philosophical position on the inevitability of human progress, everyone must admit that our age has made the greatest amount of Progress since the dawn of history.

Now, I am a rabbi. I am neither a scientist nor a moral philosopher. I can speak only in my own field of competence such as it is. And that is -- my religious tradition. I feel that in religion we have the answer, or at least the direction for the course of modern man. Allow me, therefore, to draw your attention to the view of the Bible -- the Bible common to the entire western world, on Progress. I believe that in Genesis, in the fourth chapter, whether as a fundamentalist you take it completely literally, or as more modernist you accept it as a myth -- as a symbolic language expressing a profound truth -- the Bible does have a profound relevant judgment on the question of Progress.

"THE PERILS OF PROGRESS"

I. In the Beginning

In the vocabulary of contemporary man, the words "progress" and "progressive" hold a distinct place of honor. Progress is regarded as an unimpeachable virtue, a synonym for all that is good and noble in life. Indeed, the progress resulting from the advances of science in our day is a tribute to the creativity of modern man.
It is amazing to note, therefore, that our Torah does not seem to share the popular unconditional adulation of Progress. The Torah, in its hesitation, seems to indicate that there are also pitfalls and perils in Progress. For, as Dr. Israel Eldad points out in his *Hegyonot Ha-Mikra*, in Genesis it is Cain who represents the man of creativity. Of the two brothers, it is he who is the oved adamah, the farmer who digs and plants and fertilizes and weeds and prunes in order to develop a plant -- a thing of value -- from a mere seed. And Cain, surely, did not have the most desirable character.

And yet there is another aspect to the Torah's estimation of Progress. For it we are to accept this identification of avodah with creativity, "work" as a synonym or at least prerequisite for Progress, then we must go back one generation earlier in order to find its true origins. It was Adam and Eve in the Garden of Eden who were commanded l'avdah u'le'shamrah, "to work it and keep it." The concept of avodah, of Progress, was already known to Adam. And since this is a divine command, and is the occupation of man in Paradise, it would seem that the reverse of what we said above is true: that creativity and progress and technical advances are accepted as noble virtues and praiseworthy goals of human activity in the world-view of the Bible.

"THREE PERILS OF PROGRESS"

II. Controlled Creativity

The correct understanding of the Torah's conception of Progress comes when we realize that in the Garden of Eden, G-d gave two commandments to Adam and Eve: l'avdah u'le'shamrah. The first was "to work it": avodah, creativity, the forward impulse, the capacity to produce and build. The second commandment was "to keep it": shemirah, the exercise of moral restraint and ethical discipline (as in shemirat Shabbat or shemirat ha-bitzvot). When man obeyed both together, he lived in a Paradise. The
turning point of early human history came when man sinned, and avodah and shemirah were divorced from each other. When man rebelled against G-d and was driven out of Gan Eden, he lost the capacity for exercising l'avdah u'le'shamrah together, for controlled creativity, for morally guided progress. Instead, the great combination was split amongst the two children of primordial man. One son, Cain, became the oved, the worker and man of Progress. The second son, Abel, became the shomer, the man of moral sensitivity. Cain used tools and artificial machines in order to dig and produce and create food. Abel merely watched over the sheep, that no wolves attack them. But sheep grow of their own accord, grazing by themselves. Abel, with his passive morality, is -- as his name in Hebrew indicates -- only Hevel, a breath of air that comes from the mouth: noble, pure, and clean, but short-lived and soon evaporating into nothingness. Cain (Kayin) comes from the word kinyan: acquiring, saving, conquering. Cain, the oved adamah, is a symbol of Technological Man -- the creator of tools, the man of ceaseless progress. Cain is the progenitor of Jabal, Jubal, and Tubal-cain, who respectively are the fathers of business and administration (yoshev ohel u'mikneh), of the arts (kol tofess kinor v'ugav), and industry (loteah kol haresh nehoshet u'varzel).

What we are to learn, therefore, from the biblical account of the first human family is two things: First, that Progress is a must. Without it we are left only with Hevel -- mere moralizing which is ephemeral and transient and of no lasting value. And second, that Progress without the restraint of morality -- avodah without shemirah -- leads to the evil symbolized by Cain. Like human cells which grow without control, so is the human urge for progress and creativity when permitted to proceed without moral and spiritual control --
both cases result in a cancer, one of the body and the other of the spirit. 
\textit{L'avdah u'le'shamrah} -- that is the ideal of Torah, if we are ever to reconstitute our society into a form of Paradise.

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What a powerful parable for our day! Scientists -- the men of Progress, of "work" -- of our era, have often followed Cain. They have often permitted themselves to become the merchants of death.

Of course, it is useless to rehash here whether science and progress are good or bad for people. We can not even hope to restrain the creative human spirit. It is foolish and ridiculous to try to fetter the natural human curiosity which expresses itself in research. It is both foolish and evil.

What then? What we must do is to wed "work" to "keeping"; we must reunite Progress and morality. More often than not, this advice has not been followed. I do not refer only to our current generation of nuclear physicists. Go back, instead, to the very beginnings of the history of natural science. Archimedes was in the employ of the Tyrant of Syracuse, using his scientific talents against the Romans. Leonardo was paid by the Duke of Milan to build him fortifications. Galileo was salaried by the Grand Duke of Tuscany because of his ability to calculate the trajectories of projectiles.

But I would rather point to another scientist as a model for our age. I have in mind Sir Michael Faraday, who, when the British approached him during the Crimean War asking him about the possibility of developing a poison gas against the enemy, replied that it certainly could be done, but that he would not have anything to do with it because it was an abominable and obnoxious
method of warfare. I would refer, as models, to people like Einstein and Oppenheimer and Conant. I would urge to students and to professors, to all who are somehow engaged in the scientific and technological life of our society, that as scientists they must also exercise their democratic right as American citizens, and insist upon the benevolent use of the fruits of their "work."

Why do I talk to students about this? What can you do?

First, as scientists and technologists of the very near future, you ought to realize the terrible responsibilities that are being placed in your hands. This slogan of "science has no relation to ethics" is just so much nonsense. A physician must make ethical decisions every day of his life. The physicist and engineer must make a moral decision as to whether they will develop weapons for which they were commissioned. The food chemist must decide about the nature of the additives he is preparing for his employer. The printer must make a moral decision as to whether he has the right to print certain kinds of smut or subversive literature. And a photographer must analyze carefully the limits of immorality.

Second, you can do something to define the nature of Progress in your society. The "how" differs depending upon time and place. But once you accept the responsibility, you will no doubt find the ways and means of executing it. For if we do not, we face the tragic possibility of being that exploding star where "they learned how to make it."

Now, it is easy enough to paint the picture of "Paradise" of the future when Progress will be linked to ethics, when "work" will be linked to "keeping." But that I leave to the creative imaginations of benevolent writers of science fiction, and the early prophets of modern science. For us, it is more important, even if more morbid, to be negative: to paint the picture of the terrible
alternatives, of the failure of modern man, of our decision to be Cain alone, without the addition of Abel.

"THE PERILS OF PROGRESS"

III. Alienation

It is this message which we people of religion must constantly press and impress upon our contemporaries. If modern man will continue to be just another Cain, a technologist blindly intent upon mere progress unencumbered by religious scruples, uncontrolled by ethical considerations, then he faces the same tragic consequences as did Cain of old. And they are three in number.

The first of the consequences of avodah without shemirah, is — alienation from Nature. When Cain, the oved, sinned, he was told by G-d in the famous curse: "Cursed art thou from the ground," you are to remain forever at a distance from your natural environment, and "a fugitive and wanderer shalt thou be on the earth." Your attempt to conquer Nature means that you will be eternally at war with her, never at home in the world. You are to remain a Na' ve'Nad, an eternal outsider, a stranger in the world.

Modern man experiences that result more keenly than ever before in history. Never before has man felt so lonely, so solitary and so forlorn, so alienated from nature, from world, from society — even from himself. It has become part of modern living. We live in skyscrapers and do not know the natural feel of the earth under our feet. Our children grow up in a jungle of concrete and steel and they and we are never introduced to the natural loveliness which G-d gave us in our world. And in this artificial
world of iron and cement in which we are imprisoned, we are alienated from our neighbors too, for the more people in a city, the less each knows the other. Our occasional vacation is not a return to Nature, to the experience of oneness. It is usually no more than the same dilemma in a new geographical setting. And how this dark loneliness leads so many of us to mental illness! Na ve'Nad, fugitives and wanderers on the face of the earth! Like Cain, the first oved or Man of Progress who did not have the capacity shemirah or moral experience, we too do not feel at home anywhere. It is the curse of Cain from which we suffer.

"THE PERILS OF PROGRESS"

IV. Purposelessness

The second consequence of amoral Progress is: purposelessness. After a while, the drive for progress and creativity and technical advancement is self-motivating. If the moral element (shemirah) is lacking, this drive becomes involuted, an end in itself; it becomes self-justifying without any higher meaning or purpose. When that happens individual men become like cogs in a giant wheel, existing merely for the purpose of the wheel without any other, loftier ideal or goal.

Of Cain, the great oved, the Bible tells us: "And he was building a city and called the name of the city after the name of his son Enoch." The famed author of Kele Yakar wisely asks: Why does the Torah use the language, va-yehi boneh ir, "and he was building a city," when it should say va-yiven ir, "and he built a city." His answer is even more relevant for the mid-twentieth century than it was for the days in which he lived: Cain is always building, he is never finished with his creating, he is always involved in new construction; blindly and neurotically he builds on and on. The Cain in
man is still building, even to this very day, and he will not ever finish. His creative urge has run wild. He merely builds for the sake of building, and works for the sake of working. Of course, Cain justifies his sick obsession with Progress: "and he called the name of the city after his son Enoch" ("I am doing it for the sake of my children!") But then why do his children build? -- for the sake of their children! When you examine the life of Enoch, you find that he attained no distinction that should make him worthy of all the effort of his father Cain. Nothing! All Enoch accomplished was -- to beget another son. And his son begot another son, and that son another son ... The answer of Cain is only a lame excuse for a meaningless dedication to a purposeless progress.

"THE PERILS OF PROGRESS"

V. "Homo Faber"

This is indeed the curse of modern man. We too are in the grips of an obsessive urge for progress and advance, to build for the sake of building (the "edifice complex"), to beget bigger and better businesses and more and more kinyan. And we too offer that very same excuse: we are doing it for our children. How wise was the great Hassidic master, the Yud ha-Kadosh, when he said: "All about me I see men working like slaves, and each telling himself that he is doing it for his son, and his son for his son. O Ribono Shel Olam, when will I have the privilege of meeting that man for whom all the generations have labored ..."

Indeed, all of modern life is colored by this blind, self-defeating, and purposeless drive for Progress. Without shemirah, moral restraint and spiritual direction, our avodah or Progress is bereft of significance and devoid of meaning. We use all our technological talents in order to look at
the other side of the moon — and most of us have not yet learned the names of our next-door neighbors. Like Cain, we are no happier for all the progress we have made. Joseph Wood Krutch is right when he complains that whereas man was once known as homo sapiens, Man the Thinker, he now must be called homo faber, Man the Maker. We have learned how to progress without the grace of inner guidance. And so the meaningless Man the Maker, the oved, becomes a mere statistic — building and building for no reason, — instead of becoming the human being endowed with a dignity of purpose that he should be.

"THE PERILS OF PROGRESS"

VI. Fratricide

The third and most devastating of the consequences of uncontrolled creativity and unguided Progress is: perversion, pillage, plunder. Cain, as an uncontrolled oved, becomes: a murderer! He kills his brother Abel. The shomer, the moral challenge represented by Abel, is a constant thorn in the side of his conscience. And so he rises up and destroys him, as if he can thereby destroy the need for a spiritual dimension to life. When G-d challenges Cain, saying: "Where is thy brother Abel?", he significantly answers: "Am I my brother's keeper (shomer)?" The ultimate depravity of Technological Man! What do you expect of me? How can you expect me, an oved, to be bothered by shemirah? Science is ethically neutral. Technology is amoral. You cannot keep Progress down with your religious superstitions.

This indeed is what avodah without shemirah has done for modern man. It has made of him a murderer — one who callously neglects the life, the feelings, and the heart of his own brother, as did Cain. And even worse than giving us the tools whereby to destroy our neighbors and brothers, modern
technology unencumbered by moral guidance has threatened man with the possibility of universal suicide. Our danger is that we shall become our own victims. Like today's scientists who are themselves most exposed to the deadly radiation which is part of their work, it was Cain who was killed by his own great grandson, Lamech! The Agadah teaches that in one day Lamech, father of the three technological geniuses, killed his grandfather Cain and his son Tubal-cain. That is the threat that faces us today: utter cataclysmic destruction and mass suicide touched off by some Lamech, some man of technological brilliance and moral idiocy, who will press the button that will bring crashing down over our heads the creations of our own amoral avodah. For whereas we have the capacity for avodah, the "know how," we have failed to attain shemirah, we do not have the "know whether" — or "when" — or "why" — or "if." Like Cain, we have gotten rid of Abel, the shomer. We have silenced the voice of conscience and have disclaimed responsibility for moral rectitude. The pure oved always answers, "Am I my brother's keeper (shomer) ?"