DON LAGO

A gust of madness

At this very moment on a distant planet, strangely-shaped fingers may be steering a radio telescope into line with the planet Earth. If the telescope is especially sensitive, it will be able to detect faintly the energies of the human race.

Earth doesn't need to signal its presence deliberately and systematically in order to be noticed by other planets. The energies we spray into the sky for our own uses leak through the atmosphere and into space. Our radio and television signals are spreading across the stars, and though they are quite weak and jumbled, a sophisticated technology could detect them. Yet the signals most likely to be detected are those of our radars, or more specifically, the two radar systems, each thousands of miles long, that face the north pole and watch for any sign of nuclear attack.

How very ironic it would be. As they wait to ring the alarms and flash the red warning lights in Washington and Moscow, which would start the generals sweating and raging and sending more missiles leaping from their silos, the radars would trigger a very different kind of alarm deep in space. A light on a computer console would begin flashing, indicating that a significant signal had been found. Strangely-shaped creatures would gather excitedly, check the alignment of the telescope and run the data through the computer again and again until they were sure it was real. Soon they would announce their discovery, and a whole race would celebrate, not knowing that they were celebrating another race's madness, that the signal bringing them so much joy was but the death vigil a civilization was holding for itself.

Perhaps it is only appropriate that we should introduce ourselves to the cosmos through our weapons and defenses, for few things could more honestly portray human nature and human history. Within the human brain lurks a violence that has consumed the largest part of the efforts of whole generations and societies.

The violence in the human mind now commands energies so immense that they overflow the planet and can attract the attention of a race many light-years away. That race will examine this symptom of our disease yet not be able to read its meaning. They will not realize that it is part of the enormous energies we have invested in killing and defending ourselves from one another. They will not see the thousands of missiles hiding in the ground and in the sea. They will not see the mountains of torn and burnt flesh man has raised in his history, nor the rivers of blood and tears. They will not hear the anguished cries roaring without pause through the centuries. They won't be able to taste the poison of our fear and hatred. They will be spared all of this. Their sleep will not be troubled by the nightmare named Man.

As they monitor and study the signals from Earth, this distant race may one day witness something very strange. The instruments pointed at Earth will detect a sudden surge of energy. The surge will quickly fade away, and before long the original signals from Earth will cease also. Then all will be quiet.

The instruments will be tested for malfunctions, but found to be working perfectly. They will continue their watch on the same coordinates of the sky, but never again will they detect any faint suggestion of a signal. However long they wait, whether for months or years or decades or centuries or millennia, they will hear only silence.

Perhaps this race will be enough like us that they will understand what had happened. Forever afterwards our fate will be invoked as a grim warning for themselves.

Or perhaps they will only be baffled. Over the years this event will be puzzled over and discussed. Theories will be proposed, amended, and discarded. Conferences will be held. But finally this race will admit defeat. In some official record they will log this event as: *Inexplicable*, without knowing how very true an epitaph they had written.□

Don Lago is a free-lance writer who lives in Columbia, Missouri. He is the recipient of the 1979 Cosmic Search Award.

BERNARD T. FELD

Madder than MAD

The recent reports on the official adoption by the Carter administration—under pressure from the Reagan candidacy—of a strategy of nuclear war fighting based on a so-called limited, counterforce exchange raises the serious question of whether our leaders have taken leave of their senses. Stripped of its technical-sounding, defense analyst jargon, what the decision means is that we are telling the Russians (and the world) that not only are we prepared to use our nuclear weapons first in the case of a conflict, but that we intend to use them in an entirely offensive mode in an attempt to destroy the Soviet nuclear forces before they can be used against us. Such a move on our part is supposed to be taken by the Russians as an invitation to surrender. If they are not prepared to do so—or if we succeed in destroying their leadership (one of our primary counterforce targets) so there is no one who could officially surrender—we are prepared to go on destroying target after target until we run out of targets or missiles.

One of the arguments for this new strategy is that the Russians, whose missile forces are allegedly even larger than ours, have already adopted the same nuclear war-fighting or counterforce strategy against us. At some point in a counterforce exchange, it is assumed one of us will say "Uncle" (we are never told how this could be arranged in the midst of all the nuclear carnage, however); then we'll both quit, lick our wounds, pick up the pieces start rebuilding our societies and nuclear forces in anticipation of the next crisis.

If ever a doctrine was designed as a self-fulfilling prophecy, this is it. In the "monkey see-monkey do" tradition of the nuclear arms race, the Soviets are sure, eventually, to adopt our new strategy. With both sides poised to wipe out the other's forces first, there is an immense premium on striking first in a time of crisis. Nevertheless, we are assured that this new strategy is more likely to deter the Soviets from military adventurism, even of a conventional variety, than the old mutually assured destruction (MAD) strategy of threatening retaliation against population centers in case of the outbreak of nuclear war. Furthermore, we are reminded that this is not *really* a new strategy, since the policy of counterforce has been implicit in the nature of our nuclear deployments ever since Nixon's Secretary of Defense, James Schlesinger, repudiated the MAD strategy in the early 1970s. All that is now being done is to recognize officially the inevitable consequences of technological advances that have made counterforce possible.

But if the MAD system of civilian hostages is thought to be unacceptable on humanitarian grounds, to accept these arguments for the new limited war strategy is the ultimate in barbarism. The main point of the MAD strategy was the universal recognition that

- for either the United States or the Soviet Union to carry it out would represent an irresponsible act of insanity;
- any use of nuclear weapons is overwhelmingly likely to grow (escalate) into a full-scale exchange with overwhelmingly disastrous consequences for both sides;
- the present state of huge nuclear deployments and of a vigorous technological race for their increase and improvement is unacceptable for any long-range perspective;
- the major objective of both sides—irrespective of our other political and ideological differences—must be the mutual limitation and reduction of our present vast overkill capacities to wage nuclear war; and
- a stable world demands U.S.-Soviet cooperation if we are to avoid the universal spread of nuclear weapons.

That was what SALT was about. Unsatisfactory as the results of SALT I and II were, their continuance is infinitely preferable to the state of worldwide nuclear anarchy into which we have rapidly been drifting since SALT's demise. That is why the replacement of MAD by the new strategy of limited nuclear war represents a frightening regression. To believe and act otherwise is to play into the hands of the madmen on both sides who profess to believe that a nuclear war can be fought and *won* and that international problems can be solved on this basis.

The truth is that a nuclear war between the superpowers will be the last world war for centuries to come, with the only victors the radiation-resistant cockroaches. To play with doctrines of a fightable nuclear war is the ultimate folly.□

Is there life after the election?

By MICHAEL J. FARRELL

"MORE THAN any other time in history, mankind faces a crossroads. One path leads to despair and utter hopelessness. The other, to total extinction. Let us pray we have the wisdom to choose correctly. . . ."

No, it's not a politician wooing voters, only Woody Allen in his latest book, *Side Effects*. But it's the right year for such ruminations.

Election time is time for national stocktaking and examination of conscience. Sometimes the probe is skin deep — this year, for example. But great nations — for as long as they remain great — have moments of destiny, epiphanies on a national scale, the recovery of lost vision and the will to match it with achievement. It happened with the Founding Fathers, and occasionally since then. John Kennedy called for it, and might have provided it if given the time.

This year the candidates have little vision, ideal candidates for a year when few demand it. At its paltry best this campaign had issues. Minor items like war and energy and money. If these were important, the United States, mighty in human and natural resources, could solve them quickly. Just like it put a man on the moon when it wanted that enough. And won wars when it wanted to. Not that it might win the next one, but it could solve the *problem* of war and peace. Energy likewise — there is enough energy to last until the sun goes out, and it could be harnessed in a decade if vested interests were not stronger than national vision.

A TV-packaged politician can expect the same longevity of leadership enjoyed by such other elites as sports stars or comedians.

The country is suffering from a severe bout of mediocrity.

By definition, mediocrity is the norm rather than the exception — the middle ground, the average person. But this is not a reason to be satisfied with it. The average can be high or low depending on the standards set.

Only lip service is paid to the higher standards, fine words for the big occasion. "Make America great again," intoned Ronald Reagan at the Republican convention. And Jerry Ford: "Let's never doubt America's greatness. . . , Let's start talking like winners and being winners." But the aftermath makes a mockery of this: his "handlers" muzzling the candidate so he won't say the wrong thing in public.

The tendency to mediocrity is not exclusively American, and it has been around for some time. Its opposite, expressed in such terms as greatness, heroism, sanctity, excellence, makes people uneasy. "The hero is obsolete," wrote D.H. Lawrence. Ernest Hemingway wrote about being embarrassed by words like glory and greatness. It is a century of diminished aspirations. High-sounding words or concepts are not "cool" in the age of the anti-hero. Humphrey Bogart epitomized it: "The whole world is three drinks below par." No need for grand designs when three drinks will do.

We frown on excellence for the same reason we don't like to see the next-door Joneses get a new car; general mediocrity saves us from having to keep up. By this, however, not only national destiny but also individual lives are diminished. G. Peter Fleck *(The Mask of Religion)* tells of a student at the University of Nebraska who was the first freshman to get perfect grades in all classes. Asked whether he would like to repeat the performance as a sophomore, he answered: "I should say not. It makes you too unpopular." And a 12-year-old girl, asked whether she would like to be able to fly, answered: "Yes, if everybody else did, but otherwise it would be too conspicuous." The widespread fear of not being considered normal.

But normality has not been a great success, as psychologist R. D. Laing *(The Politics of Experience)* pointed out: "Society highly values its normal man. It educates children to lose themselves and to become absurd, and thus to be normal. Normal men have killed perhaps 100 million of their fellow normal men in the last 50 years. . . ."

Some point the accusing finger at the country's pride, democracy. Historian Alexis de Tocqueville predicted that American democracy would inevitably lead to the canonization of mediocrity. And John W. Gardner wrote:

> A necessary ingredient in the strategy of freedom is a regard for excellence. This is not the place to explore the innumerable invitations to mediocrity which exist in our kind of society. . . . The idea for which this nation stands will not survive if the highest goal that free men can set themselves is an amiable mediocrity.

But George Bernard Shaw said it most colorfully: "The power that produced man when the monkey was not up to th mark can produce a higher creature tha man if man does not come up to the mark."

One of democracy's most cherished values is equality. No one complains if you're less equal than others, but it is downright undemocratic to be more tha equal. You are put under the spotlight for public evaluation. The relentless gla of the television lights quickly shows up the flaws. The same TV that is the make of today's heroes is also the instrument of their downfall. When communication were slower, reputations were made les quickly but lasted longer. Something there had to be solid to justify the slow rise above the shoulders of one's contemporaries. A TV-packaged politicia can expect the same longevity of leadership enjoyed by such other elites as sports stars or comedians. And a short-order politician catering to a short-order audience will offer, at best, short-term solutions to perennial problems.

When this country was raw and populated by only a few million people, it produced a bunch of leaders in the heroic mold. Benjamin Franklin, George Washington, John Adams, Thomas Jefferson and the others had a sense of history, they had a compass and a map, they had the naive, naked courage to point to the far horizon — in a word, vision.

Maybe there were no heroic ages, not Pericles', not Jefferson's. And maybe there were no heroes, only myths. But the backward look we continue to throw at them betrays our longing for better leaders and better times.

One consolation: there will be anothe election in 1984. If we are lucky.

Farrell is NCR's trends and reviews editor.

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Improve the press coverage

Now that the campaigning is finished and the voting is going on, it's time for the news media to seriously search for ways to more thoroughly dissect the positions and proposals of the candidates. The voters themselves, who have the awesome responsibility of selecting their leaders, deserve better.

The press — newspapers, magazines and television — has been manipulated in a major way, especially by the presidential candidates. The process has been going on for 20 years, and it gets worse every four years.

Instead of a thorough discussion of tax proposals, or American relations with the Third World, or the need for adjustments in the Social Security system, the public gets catch-phrases and scare words out of context with reality.

The press hasn't been able to catch up with the scurrying candidates and get them to sit still for full explanations.

It started with the growth of television and its evening news shows and early-morning re-runs of news clips. The politicians quickly got wise to the potential. They redesigned their conventions as shows instead of forums. TV "exposure," especially with funny hats, became the big goal.

Then the candidates themselves, along with a new set of advisers — TV experts and pollsters — redesigned campaigning. The fast jets were essential, of course. They could appear at a morning rally in Pittsburgh, a mid-day show in Tulsa, an evening production in Los Angeles, with local supporters providing the balloons and cheers.

Campaigning became visual. The cameras were always up front and close by, recording 10-second questions and 20-second answers.

There was never time to explore and explain. Dashes for airplanes replaced sit-down news conferences.

Even in the single so-called debate between Carter and Reagan, a candidate was privileged to talk all around the outer edges of a question and the questioner wasn't allowed to protest that the central point was being evaded.

In Carter's famous "town hall" shows, reporters were allowed to watch but not to ask questions themselves.

Back when Reagan was making gaffes — the two Chinas, for instance — his advisers decided the best way to stop those was to keep the reporters from cornering him. And they succeeded. He was always having to rush off to the next placard-filled rally where the cameras ground out more living color.

The public itself was partly to blame for this sort of superficiality. It could simply watch while dinner was cooking, and be entertained by the Willie Nelsons and pick up the newest catch-phrases without effort.

But the professionals who are assigned to cover the positions and proposals of the candidates are the ones who have been most manipulated, and they need to start immediately doing something about it. They have their professional organizations, dedicated to improving standards. They can set up guidelines just as well as the candidates' advisers can. They certainly have an awful example to work on.

F.A.S. PUBLIC INTEREST REPORT

Journal of the Federation of American Scientists (FAS)

SPECIAL ISSUE:
STRATEGIC PETROLEUM RESERVE

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November 1980

WHAT GOOD IS AN EMPTY PETROLEUM RESERVE?

Nothing better illustrates America's reluctance to prepare for energy emergencies than the saga of the Strategic Petroleum Reserve (SPR). It was five years ago, after the 1973-1974 Arab oil embargo, that Congress decided America needed a 90 day reserve to protect itself against oil blackmail. With imports running at about 8 million barrels a day, this meant storing 750 million barrels.

Five years later, we have stored 92 million barrels—a two week supply—and have just begun to store another 36 million barrels because Congress insisted. But the Administration is not soliciting the sale of more. It has no real guidelines on how the oil will be withdrawn. And it is moving too slowly toward the construction of space for the last 250 million barrels of the 750 million originally mandated.

Everyone Appears to Support SPR

All this despite an overwhelming consensus, within the government and without, that America needs this petroleum reserve. And events since 1975 have shown—in the spring, 1979, loss of Iranian oil and then in the fall 1980, loss of Iraqi oil—that purposeful embargoes were by no means the only problem.

Moreover, during the Iranian-Iraqi war, related tanker insurance rates jumped 300% deterring much oil traffic from entering the Gulf of Hormuz, and suggesting a new way in which the Strait of Hormuz could be closed: pre-emptively by Lloyds of London on the specter of spreading Gulf violence. The Moslem world, a mosaic of fracture lines that makes the Balkans look like an island of stability, has again exposed its capacity: for internecine warfare; for the taking up of sides by bystanders; and for its ability to draw America into the struggle (through the Saudi request for AWACS planes). Our allies have shown understandable reluctance to become involved. All in all, if recent events do not lead to an actual disaster, they certainly represent a dress rehearsal.

The strategic oil reserve, in a rational world, would be one of America's highest priorities. With its currently projected size of one billion barrels, and assuming that half of America's imports would survive a Middle Eastern oil catastrophe, the reserve could disgorge a 3,000,000 barrel a day replacement—and thus sustain the country at approximately pre-crisis levels—for about a year.

This would give the economy much needed time to adjust and would save untold billions in the gross national product. It would provide the bureaucracy with the time it needs to implement such other emergency preparedness schemes as rationing and a host of mandatory schemes for driving less (such as the day-a-week plan advocated by FAS)—schemes which are in a state of perpetual disarray. Alternatively, it would permit Congress to legislate methods that would ration gasoline through higher prices, windfall taxes and suitable rebates to low income persons.

Most important of all, it would give America the confidence to react deliberately, and thoughtfully, to threats to American oil. It should be evident now that these threats can come in many different guises which deserve quite different responses. A year's oil reserve might well not be decisive in the geo-political considerations surrounding a Soviet invasion of oil fields. But it would be highly relevant to an Administration trying to

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gauge whether it needed to intervene to support a Saudi regime or could, alternatively, wait to deal in due course, with a successor government. And since, to put it mildly, war is the most expensive of man's activities, an oil reserve that could provide an alternative is cost-effective indeed.

At present, and under intense Congressional pressure, the Administration is taking 100,000 barrels a day for a year from the Elk Hill Naval Petroleum Reserve and, through swaps, is "front-loading" most of this into the Strategic Petroleum Reserve by January 1. The Administration's reluctance appears to have been an exaggerated response to not very strenuous Saudi objections to our filling the reserve. We urge that solicitations to purchase more oil after that time be put out immediately for substantial amounts of oil, on the order of 300,000 barrels per day. In fact, it should be the goal of any Administration to ensure that there is no period in which the Strategic Petroleum Reserve is not being filled *at least at some level,* so as not to present an opening to those who would seek to dissuade us from protecting ourselves.

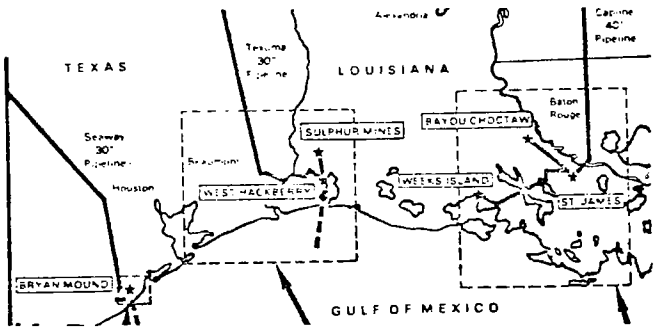
We urge the Administration in general, and OMB in particular, to accelerate work on the next phase of construction of storage space which will, under the best of circumstances, take four years to bring on line. We urge the Justice Department to cooperate with the Strategic Petroleum Reserve Office lawyers in pressing the previous owners of the strategic reserve salt domes to answer any and all technical interrogatories about these domes, as part of the litigation now underway over the Government's purchase price. We simply must know everything we possibly can about those salt domes to ensure that the oil is safely stored, and can be efficiently retrieved.

As the reserve fills, there must be intense thought given to the conditions under which the oil will be withdrawn. Can it be done in conjunction with allies and in response to price shocks so as to hold down ratcheting upwards of oil prices in crises? Or should the reserve be thought of as an ultimate bargaining chip almost never to be played? It is believed that the salt caverns will safely permit five complete withdrawals and refills; what domestic pressures will there be to use this refill possibility, or to avoid it? Our specialists are not agreed on these questions and the matter clearly needs attention.

America likes to believe that God looks after it. And heretofore, we have been strong enough to leave emergency preparedness to weaker nations. But today, in the face of massive instability in oil production, we no longer have the luxury of ignoring future possibilities. Rarely have so many portents of future disaster been so widely ignored in preparedness; the strategic petroleum reserve is becoming a test of American common sense.

—Reviewed and Approved by the FAS Council

The Five Storage Sites and the St. James Terminal



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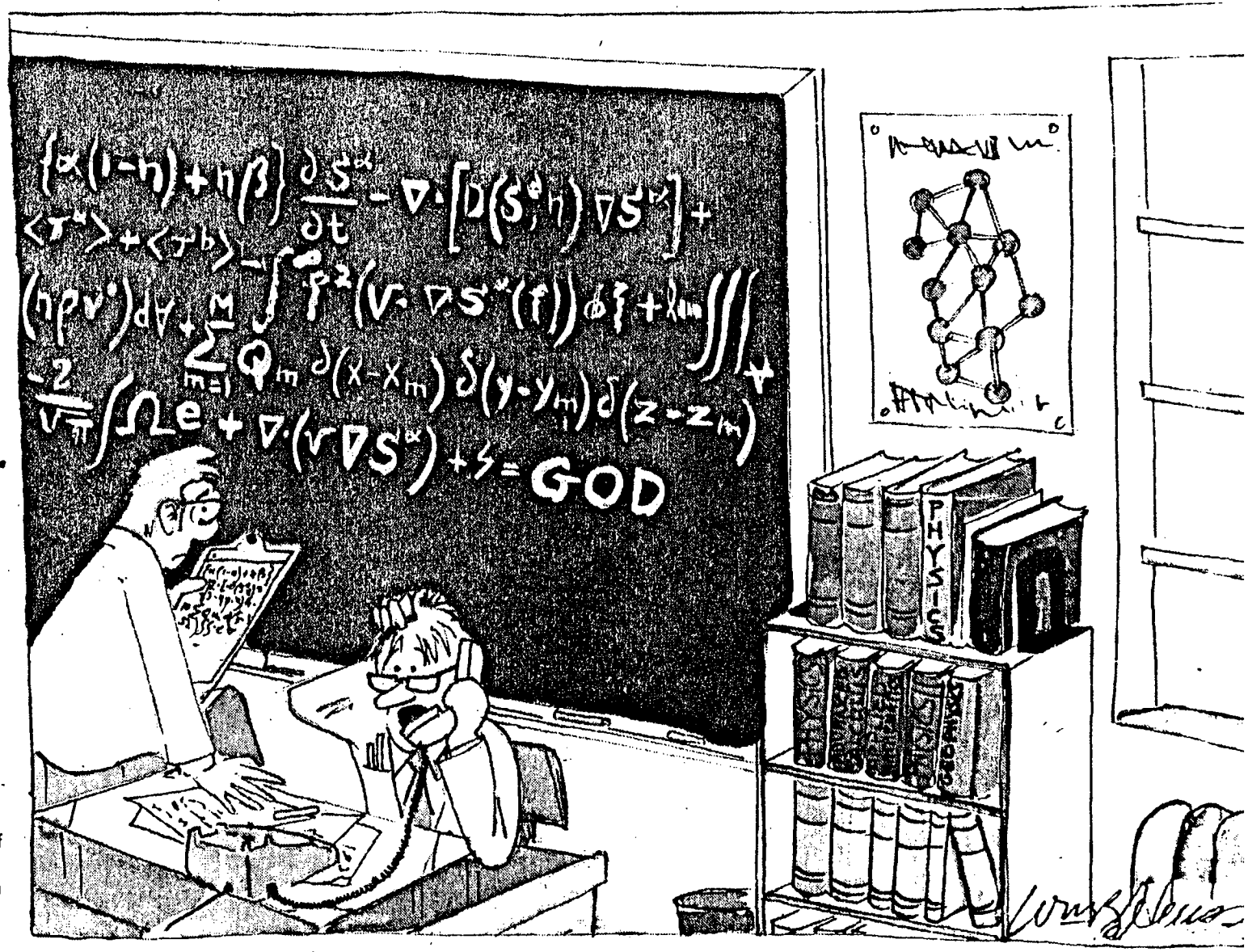
National Catholic Reporter
September 5, 1980

Science, God and civilization: Templeton prizewinner links them

By PHILIP L. ZEDIKER

THE ANNUAL TEMPLETON FOUNDATION prize of $206,000 for progress in religion was awarded this year to Ralph Wendell Burhoe, for his revolutionary theory that civilization cannot develop or continue without religion. Burhoe, 68, professor emeritus of theology and science at the Meadville Lombard Theological School affiliated with the University of Chicago, has spearheaded an interdisciplinary group in science and religion, and argues that only religion produces the cooperation and self-giving that make civilization possible.



"Hello . . . Scientific American? . . ."

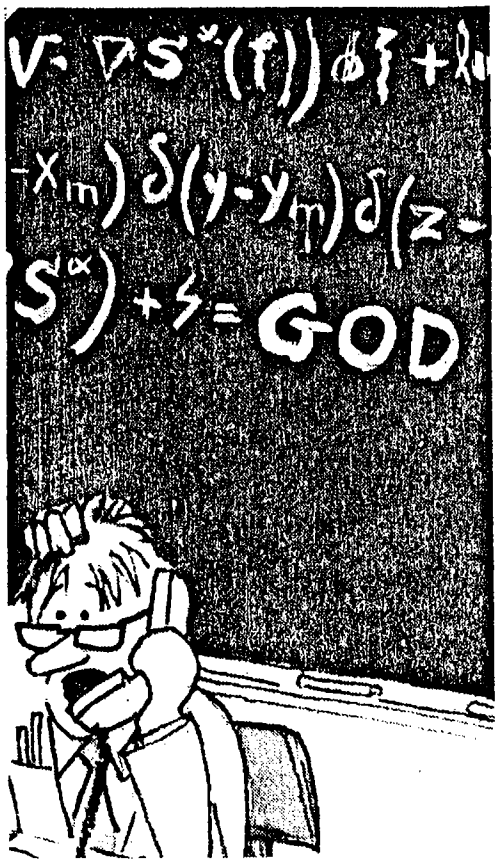
The Templeton Award, the religious version of the Nobel Prize, was created in 1973 by American financier John M. Templeton to recognize outstanding contributions to religion. The first winner was Mother Teresa of Calcutta, winner of the 1979 Nobel Peace Prize. Other recipients include Brother Roger, founder of the Taize religious community in France; Cardinal Leo Joseph Suenens of Belgium; and Nikkyo Niwano, Japanese founder of a large Buddhist organization and vice president of the International Association for Religious Freedom. Prince Philip presented the prize in London on May 13 to Burhoe, the first American to win the award.

Using concepts from physics, chemistry, biology and systems analysis, Burhoe argues that religion is the missing link in the scientific explanation of how civilized humanity has emerged out of primitive humanity. The cooperation and self-giving that have shaped civilization from the raw material of prehistoric humanity are inconsistent with the rest of nature, he explains.

Animals, insects and other living organisms are programmed at the genetic level to provide only for the survival of their offspring, close kin and those who can immediately help them. "The self-denial shown by humans in building organizations, nations and a global civilization cannot come from our selfish animal genes. Even the great cooperation in ant societies is limited to creatures more closely related than human brothers and sisters. The altruism in mankind is one of the great mysteries in evolutionary theory," points out Burhoe.

The answer to the paradox of human self-denial is found, according to Burhoe, in understanding the unique role of religion in human society. The Templeton winner cites evidence from the sciences that civilized societies of non-kindred humans are completely new entities on the stage of history.

These societies or "social institutions," together with the culturally transmitted information that shapes them, are organisms with their own existence and life. These societal organisms represent a separate species within which we live and which lives within us, incarnated in and developing from the brains of a population of ape-men whose genes are less than one per cent different from the genes of chimpanzees and gorillas. Religious information, interacting with the genetic information in those brains, led to their transformation into new creatures capable of altruism to strangers and civilized cooperation.



Religions tend to maintain the proper balance between the needs of the individual organisms and the needs of the societal institutions, so that all mutually serve one another. "The self-giving stimulated under good religion does not contradict the goal of the selfish genes; instead, altruism aids the enduring life of the gene by merging its fulfillment with fulfillment of enduring cultural goals, and with fulfillment of God's everlasting purpose, which are also goals of human nature."

In an interview for the *National Catholic Reporter,* Burhoe paid tribute to Teilhard de Chardin as "the great pioneer and inspiration for work to understand religion positively in the light of the sciences." He cited Canadian theologian Bernard Lonergan, and Enrico Cantore, director of the Institute for Scientific Humanism at Fordham University, as Catholic counterparts in religious-scientific integration.

The theological and scientific communities of the past few centuries have failed "to keep in touch and to express the religious realities in terms of the new scientific realities. Instead they've separated them, "Burhoe said. The theologian-scientist sees his work not as a final statement but as one of the early attempts to reopen religious-scientific dialogue.

In the scientific view, a human "is made up from subsystems of organs, which are made up of cells, which are made up of molecules; and at the same time he is made up of elements fed to him from the levels of supersystems: he is structured by inputs from his family, his local society, the total species, and ultimately from the ecosystem of the world and the cosmos."

The gene formations that underlie and produce living organisms are similar to other structures throughout nature, according to Burhoe and most biologists. Underlying the whole of creation is the cosmotype, the ordered and ordering reality system which produced the universe and on earth "life and humanity and its several religions and the truths of those." Societal organisms are the products of culture-types, information packages of languages, customs and socially transmitted values generating civilization. The cosmotype, culture-type and genotype merge in humans, who are "a part of the ongoing process that has been establishing on earth higher levels of information and organization for several billion years."

The process of producing ever more complex organization operates through selection. Those structures are selected, or remain in being, which produce patterns that are stable. Thus, culturetypes, genotypes and cosmotypes are steadily climbing toward higher levels of stability and complexity, as better adapted patterns are formed. "Selection produces a hierarchy of levels, progressively moving up the ladder of increasing complexity and adaptation." Burhoe believes that the source of the powers which do the selecting in scientific accounts of evolution is what religions have called God.

Burhoe uses the term "religion" to designate the cultural core of information by which basic social values and behaviors are related to the individual's values and behaviors. The religious culturetypes "provide the information that organizes or controls man's sense of good or evil in a

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Zediker, a member of the Catholic Theological Society of America and author of The Wealth of Galaxies, *is a psychotherapist in Kankakee, Ill.*

Science and God

(Continued from page 7)

way that integrates his personal needs with his social needs."

In the language of systems analysis, religions are at the top of the hierarchy of the coordinated net of control mechanisms that shape human social behavior and integrate the social and personal needs of men. Thus, religion is viewed as "maintaining or producing organization, producing viability, providing vital balance, and as a central organizer of perceived human experience." In its cosmic setting, religion is conceived as a driving force toward higher levels of complexity and organization, at the core of unfolding creation across the ages of time.

The selection process that governs all nature applies equally to humanity and its religions. Ape-men coadapt to the social organism with reciprocal altruism, because the fulfillment of the selfish genotype now depends on the selection likewise of the culturetype and cosmotype. "Human societies are informed or dynamically structured by their cultures, and without culture, Homo sapiens is not viable," Burhoe declares.

The culturetypes for languages, technologies, rituals, mores, myths and institutions are subject to selection, as are human values ranging from the individual's values at a particular moment, to mundane daily evaluations, to fundamental or supremely significant religious values. All are ruled by selection, that is, whether they maintain and increase adaptive complexity.

"I cannot imagine a more important bonanza for theologians and the future of religion than the information lode revealed by the scientific community," said Burhoe. "It provides us with a clear connection between human values, including religious values, and the cosmic scheme of things. . . . The phenomena and the truths of human values and religions may be considered not as vanishing mists of superstitions in the new morning of the scientifically illuminated day of human understanding, but as an integral part of the scientific scheme of things."

Rather than being irrelevant and obsolete, the time-tested values of traditional religions have been found, by such scientists as D.T. Campbell, to be better-tested recipes for living and for human altruism than the scantily tested speculations of psychology, psychiatry and psychotherapy. We are on the threshold of one of the greatest religious reformations in history, the Templeton laureate believes.

In addition to established information as to what are the values and goals of the system, religion also shapes the desire and motivations for attaining these goals. Since the most primitive stages of religion begin with and depend on genetically programmed, animal-ritual communication, there must be much ritual communication even in higher religions. Religious rites, acts and belief systems by their nature connect neurologically and resonate with the depths of the central nervous system.

BURHOE

Because of this tremendous power, untested novelty in religion may be dangerous, as at Jonestown. But in a well-tested and mature religion, "the grandeur and magnificence of faith, nourished with ritual, symbol and liturgical worship, filled out and enriched by theology and reason, penetrate and structure the most profound levels of the individual and society, developing and empowering the culturetypic patterns and rules that create civilized humanity." In spite of recurring claims by governments and secular ideologies, says Burhoe, only an historically evolved religion has the complex subtlety and power to produce civilization.

Burhoe looks with anguish on the frequently unrestrained self-centeredness of modern life and the unresponsiveness of individuals to their duties "on behalf of the state and other contemporary social institutions, and to serve the needs of other individuals." No social or cultural group can long survive which neglects its members. And no individual can long survive who neglects the organizations and groups he depends on.

"Whether told in the language of evolutionary theory or the language of a judging deity, the nature of superior forces that govern human history will ter to diminish or eliminate a people who ar indifferent to the requirements and benefits of cooperation and self-giving fo the well-being of the larger society, upo which their individual well-being depends," says Burhoe.

To make civilization possible, religion enters biologically selfish humans and, interacting with their bodily nature, transforms them into new social beings wit higher powers, goals and purposes. Burhoe presents a unified theory integrating the individual with the social organism and religious culture, in fact, the cosmos itself.

He points out that religions and theologies, in arguing against undiluted self-centeredness, have been far ahead of secular thinking. Life as we know it will fade and decline without the renewal an reintegration of religion into the mainstream of civilization. Burhoe concludes that "religion, the accumulate wisdom for life in the context of ultimat realities, is permanently necessary and inescapably built into human nature."

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