

AMERICA AND THE FUTURE OF MAN

COURSES BY NEWSPAPER

(Editor's Note: This is the last of 20 essays by leading men in the world's academic community. The writer of this essay is vice chancellor for academic affairs and professor of biology at the University of California, San Diego. Herein he discusses human and social values as related to the future of man.)

by Paul D. Saltman

Since the beginnings of civilization, man has attempted to predict his future. He has sought to foretell his destiny from the intricate patterns of the star-filled heavens, the entrails of sacrificed chickens, the residue of tea leaves in cups, the turn of tarot cards, and thousands of other signs, symbols and omens.

Wise men, shamans, gurus, oracles, and yes... even priests, professors and politicians... are looked to for their visions and foresight. Indeed, the series of articles "America and the Future of Man" is one manifestation of this concern with our individual and collective future.

How do we divine the future? What forces shape our behavior and thus, in effect, create the future reality? I see today, as never before, an intense and polarizing struggle for man's mind between the forces of faith and mysticism and science and reason.

Recently at a dinner party, a highly educated and intelligent person leaned over and asked, "What's your number?" I was taken aback. I did not know whether it was a telephone number that was wanted or perhaps a Social Security number. Or who knows; there are so many numbers in our society today. In fact, she was asking for my numerological number.

She put great faith not only in these magic numbers but in signs of the horoscope as well as predictors of human personality and activities. Look about us. We live in a bumper sticker world. In the few letters that can be scrawled and pasted upon the outer limits of automobiles, we see calls for religious dogma and for radical political action, statements for and against guns, demands for wilderness areas and at the same time for more ski lifts. Our lives and times are motivated by slogans, 30-second commercials, headlines and the instant mass culture of superficiality.

Most people are strongly attracted to accepting a course of action or direction for their lives imposed from an external source. Such a relationship absolves the individual from the personal decision-making process.

He wraps himself in the security blanket of "inevitability" of dogma, and he need not invest the enormous amounts of time, effort and, above all, thought, required in making creative decisions, and meaningfully participating in the governance of his life and the lives of others.

We are faced with modern "Luddites," the English hand-weavers of the 19th Century, who out of fear tried to destroy

the power looms that threatened their livelihood. Now, we hear from every quarter cries to slow down or stop the scientific quest for new knowledge and its application through technology.

Leading writers and philosophers, including Lewis Mumford, Herbert Marcuse, Theodore Roszak and William Irwin Thompson, accusingly point to science and technology as the fundamental cause of the crisis of man today.

Archibald MacLeish has called for a moratorium on new science and research until we can cope with the enormity of the information that we now have and use so ineffectively. And yet, this is the very moment when the fundamental problems of man have a base in science and technology and cannot be solved without them. On the other hand, how long have we been lulled into a sense of false security by our scientists and technologists? They continually reach out for more moneys for their research projects, holding forth promises of everlasting health and life, smog-free cities, supersonic transportation and Elysian fields of a labor-free life—none of which are delivered.

There is a great similarity between the primitive tribes of New Guinea who practice the "cargo cults" and our contemporary American society. Those primitive natives once experienced the windfall of crashing bombers in World War II, which would bring them unbelievable riches; now they build elaborate airplane-shaped totems hoping that planes will crash there again. Similarly, we in more "civilized" cultures continually are reminded that the building of atomic bombs and putting men on the moon symbolize the ability of science and technology to solve all of our problems.

One of the major factors contributing to our schizoid dilemma between mysticism and reason is the apparent crisis we face in handling the enormous amount of information which is generated, transmitted and received throughout the world. Each of us continually feels inadequate to come to grips with this superabundance of information—to understand it, to digest it and to utilize it. We must have a "fluency" with language which enables us to express our complex ideas both in quantitative and qualitative terms.

We must also develop conceptual structures within which the language, both verbal and numerical, can be utilized. Scientists have too often neglected their social responsibility to communicate and explain their ideas and discoveries in language and in concepts which can be understood by interested citizens. Those of us who work in the areas of science and technology must recognize the necessity not only to share our knowledge, but also to point out the diverse social consequences of applying this knowledge. Scientists and technologists

must always recognize and identify where their "knowing" is scientific and where it is a function of personal value judgments.

I believe that our feeling of intellectual impotence may be built in to our approach to education. We have long been geared to the notion that education should impart facts and data, literally to fill up the biological data banks of our brains.

Rarely do we come to grips with developing the skills of mathematics and language, the ability to see fundamental relations and explanations within the data and the facts, and above all, the methods by which to seek and find new knowledge and new relationships. At a time when computers can store far more information for instant recall than can the human brain, it seems a shame not to use the intricacies of the human brain in a more creative and functional fashion.

Furthermore, within the process of education at all levels from preschool through post-graduate, we readily succumb to the fragmentation of knowledge as described in C.P. Snow's "Two Cultures." We fail to commit ourselves to the notion of an education for one culture in which the disciplines of science, the social sciences, the humanities and the arts interrelate and integrate.

Mysticism and reason need not be polarizing forces.

In all of our thoughts and actions these modes of perception are functioning together. How few scientists and technologists recognize and are willing to admit the acts of faith that underlie the very scientific methods that they employ. Conversely, some of the most basic contextual aspects of art, poetry, philosophy and music are closely related to concepts that are operational in science.

There are three underlying assumptions of faith that every scientist must hold whether he knows it or not. These are: (1) There is order in the universe. (2) Man can understand that order. (3) It is good to understand that order. Indeed, it is the quest to understand meaningful relationships in the universe that drives all of us who practice science to continue searching.

Elizabeth Sewell, a creative poet and teacher, was educated as a mathematician, and she pointed out clearly that all great art and poetry have reason, form, simplicity and grandeur—the very elements of which great science is built. Miss Sewell went on to describe poetry in terms of understanding self and relationships to others, the foundations of many of our social sciences and the problems that they seek to understand.

My concern as a scientist, as a teacher, as a citizen and perhaps above all as a human being is to live and act in accord with the notion of the one culture of man. Science is only one way of perceiving the universe through its questioning, proposing hypotheses, experimenting and verifying the hypotheses, and ultimately extrapolating from present understanding to new questions and new ideas and new relationships.

I think we should bring this same sort of perception into everything we think about and do.

At the same time, we must see that the fundamental issues of the future of man are not solely based on facts or data, but rather lie in the human and social values that we place upon our interpretations of these facts.

Jacques Monod, the French Nobel Prize winner and biochemist, spoke most eloquently when he said, "Man finally knows that he is alone in the different immensity of the universe. No more than his destiny is his duty anywhere preordained. It is up to him to choose between the kingdom and the shadows." What is to be man's choice? On what rational or mystical individual and collective premises shall it be made? For me, the answer lies in our commitment to knowing and understanding, our concern for self and others, our sensitivities to our own and our society's needs, and our belief in individual and collective man's ability to change and evolve.

Many years ago, I appeared on a panel program with a delightful and brilliant Canadian author, June Callwood. At that time, we were discussing our



Dr. Paul D. Saltman

value judgments and concerns, and I referred to the biblical credo, which has influenced greatly some aspects of my own life. "I am my brother's keeper."

On reflection, June Callwood asked me to reconsider that motto, slightly changed but far more powerful, "I am my brother." If each of us can recognize the reality of this paradoxical and dynamic interaction of existential self and societal others, and at the same time bring into dynamic equilibrium the forces of faith and reason, I believe that the future of man and the societies and nations of this earth will be better. We can and must make it so.

Conservation Director Attends Farm Meeting

Ernest S. Young, director of Luzerne County Conservation District, attended the annual meeting of the Pennsylvania State Council of Farm Organizations Jan. 30 at the Embers Quality Motel, Carlisle. Gov. Milton J. Shapp and Secretary of Agriculture James McHale addressed the group.

Police Report

Dallas Township

There were four accidents reported in Dallas Township last week. The first occurred Feb. 4 on Edginger's Hill Road at 11:32 a.m., and the three occupants of one of the vehicles had to be taken to the Nesbitt Hospital in the Dallas Community ambulance.

According to the report, James M. Carey Jr., 96 Sharpe St., Kingston, was traveling west when, at approximately 250 feet east of the intersection with Demunds Road, the car crossed over into the eastbound lane and struck a car driven by Carla Knecht, RD 1, Pittston, who was traveling east. From the force of the impact, both vehicles were forced into the berm on the opposite side of the road. The Carey car came to rest in the eastbound lane and the Knecht car stopped in a ditch, facing east.

Patrolman Douglas Lamoreaux investigated and estimated damages at \$1,500 to the Carey vehicle and \$1,000 to the Knecht car.

An accident on Rt. 309 and the intersection of Grandview Avenue, was reported Feb. 6 at 5:20 a.m. by Patrolman John Appel. Donald W. Schaefer, Fenwood Park, Dallas, was traveling south on Rt. 309 when the power steering in his 1972 Mercury locked, and the car went into the northbound lane, hitting some guard rails.

On Feb. 8, at 9:05 p.m., a single car accident was reported on the Kunkle-Alderson Road, Lamont Haldsworth, Harveys Lake, was traveling west on the road, one mile west of the intersection with Route 309, when he lost control and veered to the right off the west-bound berm, striking a guard rail. The vehicle continued in a westerly direction, crossing the roadway into the eastbound lane to a road culvert, and turned over on its roof, facing east.

Patrolman Russell Banta estimated damages at \$600.

Slippery roads were cited as the cause of an accident Feb. 11 on Rt. 415 at about 9 a.m. William Harry, Plymouth, was traveling south with a passenger, Ann Mowry, when his car fishtailed and spun out of control, hitting a pole. Chief of Police Carl Miers and

For The Record

Congress Votes is issued every week that Congress is in session. It covers all votes of record and reports the position taken on each measure by the elected official whose name appears below.

Daniel J. Flood 11th Congressional District, Pennsylvania

No. 46 93rd Congress February 7, 1974
H.R. 4861 authorizes the acquisition of additional lands across the Potomac River from Mount Vernon for Piscataway Park so as to protect the view from George Washington's home. Yeas 334. Nays 4. Passed, Feb. 4.

H. Res. 794 provides for consideration of H.R. 1121. Yeas 397. Nays 0. Agreed to, Feb. 5.

Mr. Flood voted yeay.

This bill (H.R. 11221) increases the present DEPOSIT INSURANCE CEILING on individual accounts in insured banks, savings and loan associations, and credit unions from \$20,000 to \$50,000. The bill also provides 100-percent insurance coverage for public funds held in time deposits by these institutions for governmental units. On an amendment deleting the section of the bill providing 100-percent coverage for public funds: Yeas 170. Nays 202. Amendment rejected, Feb. 5.

On ordering the previous question on a motion to recommit the bill to the Committee on Banking and Currency (in effect, a motion to vote on the motion to recommit): Ayes 122. Noes 259. Previous question not ordered.

Mr. Flood answered present.

Whether to pass H.R. 11221: Yeas 282. Nays 94. Passed, Feb. 5.

H. Res. 803 authorizes and directs the Judiciary Committee to investigate fully whether sufficient grounds exist to IMPEACH the President. The resolution also gives the Committee the power of SUBPENA in this investigation. On ordering the previous question (in effect, a motion to vote on the resolution): Yeas 342. Nays 70. Previous question ordered, Feb. 6.

Mr. Flood voted yeay.

On the resolution: Ayes 410. Noes 4. Agreed to, Feb. 6.

H.R. 5463 establishes uniform FEDERAL RULES OF EVIDENCE for use in United States Courts. Ayes 377. Noes 13. Passed, Feb. 6.

Mr. Flood voted yeay.

On a motion that the House adjourn: Yeas 125. Nays 155. Rejected, Feb. 6.

Mr. Flood voted nay.

H. Con. Res. 425 provides for adjournment of the House from February 7, 1974 to February 13, 1974. The Senate amendment provides for adjournment of the Senate from February 8, 1974 to February 18, 1974. On a motion to occur in the Senate amendment: Yeas 209. Nays 175. Agreed to, Feb. 7.

Mr. Flood voted yeay.

H. Res. 835 provides for consideration of S. J. Res. 185. Yeas 384. Nays 10. Agreed to, Feb. 7.

Mr. Flood voted yeay.

S.J. Res. 185 advances the effective date of an Interstate Commerce Commission order requiring regulated trucking companies to pay their independent owner-operators for increased fuel costs. The order is made effective February 15, 1974 rather than March 20, 1974 as required under the provisions of the Interstate Commerce Act. Yeas 374. Nays 6. Passed, Feb. 7.

Mr. Flood voted yeay.

H.R. 11873 establishes a grant program to support animal health research at colleges of veterinary medicine and agricultural experiment stations. On a motion to recommit the bill to the Committee on Agriculture: Yeas 27. Nays 328. Rejected, Feb. 7.

Mr. Flood voted nay.

Whether to pass H.R. 11873: Yeas 324. Nays 23. Passed, Feb. 7.

Mr. Flood voted yeay.

Only Yesterday

Forty Years Ago
1934

L. A. MacHenry presented plans to Dallas Borough Council for a community athletic field, advising location in Goss Manor.

Andrew Dymond, Tunkhannock, was rescued from Harveys Lake by two fishermen when his truck broke through the ice and sank to the bottom. Dymond was on his way to pick up a load of ice blocks near the Sordoni Estate when the mishap happened.

An annex to the Dallas Township School was discussed by the school board.

The ice crop at Upper Bowman's Creek was reported a bumper one this season.

Andrew Sordoni was host to a committee interested in a new Luzerne bypass to expedite traffic from Kingston to the Back Mountain.

Justice Department brought an abrupt end to plans of Kingston Township to construct a new \$100,000 school building.

Virginia Harding, Truicksville, proposed a sifter tower to link missing persons with their families.

John Neuer, last of Noxen's Civil War Veterans, died three days before his 92nd birthday.

Laketon took top place in the basketball league.

G. R. Splitt, Jackson Township, fractured his left hip and leg while teaching his son to skate on a pond near his home.

Thirty Years Ago
1944

Dr. Henry M. Laing Fire Company organized its own band on the suggestion of Dr. Budd Schooley.

Twenty Army transports flying over the area brought a bit of excitement to the region.

Ira Lamoreaux, Jackson Township, died. His grandfather was the early pioneer in the community.

Dallas Township was seeking funds to redecorate its honor roll.

George Stolarick, Lehman, returned from Iowa where he purchased 50 horses, preferring the Iowa breeds to those of the wilder Dakota strain.

Robins, flickers and bluebirds made an early appearance, bringing welcome tidings of spring.

Don Shaver, played host to all who bought war bonds, doing his part for the nation's Civil Defense program.

Servicemen heard from: Cpl. Harry Edwards, Texas; Charles Metzger, Ala.; Pvt. Roy Schultz, La.; T. Sgt. Emory Kitchen, Ky.; Pvt. Warren Johnson, N.C.; Pvt. John Owens, S.D.; Stanley Hout, Alaskan Highway; Fred Wilcox, Ireland; Harry A. Long, Italy; Robert Girvan, N.Y.; Lt. Hal Thompson, Calif.; Pfc. Victor Nenous, England.

Died: Phillip Rineman, 68, Truicksville; Andrew Kovach, 62, Chase.

Twenty Years Ago
1954

Frances Dorrance, beloved citizen, was awarded the Distinguished Service Citation by Black Diamond Post, American Legion.

Rafeal Rodriguez, Truicksville, won three prizes in the Student Agricultural Project, bringing honors to Lehman, Jackson and Ross.

Supermarket ads featured pork loins, 33 cents a pound; ham, 59 cents a pound; rib roast, 65 cents a pound; jumbo shrimp, five pounds for \$4.89; lobster tail, \$1.69 a pound; tuna, three cans for 73 cents and a four pound bag of apples sold for 39 cents.

Born: Kathy Lee, daughter of Mr. and Mrs. Laing Coolbaugh, Dallas, and Susan Ann, daughter of Mr. and Mrs. Roy Boothe, Shavertown.

Died: David Jones, 71, Truicksville; Arthur Cobleigh, 83; Josephine Miller, 74, Dallas; Esther Long, 72, Dallas; James Hill Sr., 41, Hunlock Creek and Ralph Cease, 73, Muhlenberg.

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Ambulance Log

KINGSTON TOWNSHIP

Jan. 27—Accident at Carverton Road Truicksville not needed. Crew: Walter Davis, Pete Williams and Mike Youngblood.

Jan. 28—George Bulford, Sutton Road, Shavertown to Nesbitt. Crew: E. J. Brown, Jim Lorah, B. C. Hirdeman and Allan Adamitz.

Jan. 30—Rev. Beutlers, Woodbine Road, Shavertown, from Wilkes-Barre General to home. Crew: Walter Davis and E. J. Brown.

Jan. 31—Florence Underwood, West Center Street, Shavertown to Wilkes-Barre General. Crew: E. J. Brown, Dave Salatino, Mike Youngblood and Budd Hirdeman.

Jan. 31—Bessie Davies, RD 5, Shavertown to Nesbitt Hospital. Crew: Dave Salatino, B. C. Hirdeman and Irene Davies RN.

Feb. 1—James B. Huston, Park Street, Dallas to Wilkes-Barre General. Crew: E. J. Brown, B. C. Hirdeman and Dorothy Huston.

Feb. 2—Al Zakajawski, Manor Drive, Midway Manor, from Geisinger Hospital to home. Crew: Walter Davis, Al Adamitz and E. J. Brown.

Feb. 4—Alex Mahoney, RD 3, Wyoming to Nesbitt Memorial Hospital. Crew: E. J. Brown, Gary Beisel and Wayne Fredericks.

Feb. 6—Daniel Barretini, West 4th Street, Wyoming, from Francis Slocum Lake to Nesbitt Memorial Hospital. Crew: Larry Hourigan, Paul Grimes, Walter Davis, Harold Heidel, and Mike Youngblood.

Feb. 8—Helen Dudascik, Church Road, RD Wyoming, to Nesbitt Hospital. Crew: Paul Grimes and Jim Lorah.

HARVEYS LAKE

Feb. 2—Called to Warden Place dock, not needed. Crew: Art Wagner, Jim Stenger and Jim Faerber.

Feb. 4—Bess Cooke, Idetown, to Noxen Clinic and home. Crew: Art Wagner and Paul Wheat.

Feb. 6—Fire support, Stetz residence, Warden Place. Crew: John Stenger.

Feb. 10—Joan Austin, Nesbitt Hospital to General Hospital. Crew: Art Wagner, Paul Wheat and Jim Faerber.



LOOK BACK, LOOK AHEAD—Dr. Paul D. Saltman, in his conclusion to the Courses by Newspaper series, America and the Future of Man, puts the past and the future into focus. This illustration seems to tie in the relationship of yesterday, today and tomorrow. (Karl Nicholson illustration.)

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