

PROPOSAL TO ESTABLISH AN INDEPENDENT CENTER FOR ADVANCED STUDY IN RELIGION AND SCIENCE

This "proposal" is the present form of an evolving statement, the product of many minds who have spent many years wrestling with the problem of human values in an age of science. It may be said to be a declaration on the part of one of *Zygon's* sponsors, the Center for Advanced Study in Theology and the Sciences (CASTS) of Meadville/Lombard Theological School, to say it has reached adolescence and must establish itself as an independent and responsible adult institution to carry on its work in the world. The declaration presents to the community of those concerned with religion in an age of science a proposal for the Center's future work.

The document is already the product of several cycles of feedback from a hundred or two of that community. It is here presented to a larger portion of that community as a contribution to the thinking and planning of all who would provide the ideas and institutional support for religion in an age of science. It is also presented with the hope of receiving further input of ideas and substance to shape the CASIRAS program. — EDITOR.

Danger signals for human society are flying. These include the decay of moral values, the spreading confusion and fears of men about purpose and meaning (and the consequent losses in hope and morale), the retreat from realism to fantasy (with or without the aid of alcohol and other drugs), and the outbursts of irrational public violence. These interconnected problems are aggravated by trends of new technology that produce destructive weapons, overcrowded population, and many disruptive stresses upon the social, political, economic, and ecological balances upon which life depends. We believe these dangers may be avoided or reduced if ways can be found to reform and revitalize the institutions that generate morale and morals.

Preliminary explorations have been made in the past two decades by men of science, philosophy, and religion seeking to relate constructively the highly significant elements of traditional religion and social philosophy with the best scientific understandings of man and his world. These explorations suggest that, on the basis of recent knowledge, we can soundly unite some important religious and scientific views of human destiny and that from this union there can

be formulated a credible vision of human hope and duty that could persuade the people of the world of more meaningful, satisfying, and viable patterns of life. Such a vision seems necessary to engender the morale and morals necessary for cooperative and viable life on the new technological spaceship Earth. Some of these explorations have been published in the first seven volumes of *Zygon*.

This vision must be further developed, validated, and communicated to scholars, teachers, clergy, writers, and others involved in the professions that transmit human values. Certain men and institutions are ready to cooperate in this program if adequate financial support can be secured.

THE CRISIS IN HUMAN VALUES AND A SOLUTION

Science and technology in the past hundred years have catapulted mankind into a new kind of environment that involves us in a different understanding of ourselves and requires a different way of life. New necessities and opportunities are challenging us, for which our traditional beliefs and preferences are inadequate and confusing guides. Many of the talented and sensitive youth of the world are openly doubting the moral and spiritual traditions they have inherited from their elders. Many wise men fear that if we do not soon find more valid and compelling visions of our goals and hopes to bind men meaningfully and viably into community with one another and with the ultimate resources and powers on which life depends, then our social and individual lives face disintegration.

MAN'S CRISIS IN MORALE AND MORALS: SIX PREMISES

To counter this danger, the proposal of the Center for Advanced Study in Religion and Science (CASIRAS) is based on the following six premises concerning mankind's problem.

1. Man's basic feelings of hope and duty have been shaped for thousands of years by religion and its related arts and agencies such as drama, music, poetry, stories, popular philosophies, etc.

2. But in the twentieth century the credibility and effectiveness of the traditional religions of the world have rapidly declined under the impact of new knowledge and new ways of living. Moreover, the related arts and agencies, even when largely freed from their earlier religious matrix, have also largely failed to orient man's feelings and behaviors in ways relevant for life in a scientific-technological world. The symptoms of religion's decline may be read in the atrophy or disruption of two interdependent areas of man's behavior that reli-

gion shapes: *personal morale* (including man's sense of meaning, purpose, and hope) and *public morals* (including the voluntary behavior of both individuals and groups in ways proper for the general welfare of society).

3. In this century, a number of variations on ancient life-styles and newer philosophies have been explored to fill the breach in the cultural structures for maintaining morale and morals. These include hedonism, nationalism, and the Freudian and Marxist programs of salvation. However, it seems doubtful that even the best of these suffices for the task. In different ways, from the cries of existentialist poets and philosophers about the meaninglessness and absurdity of life to the growing disenchantment of youth, we see a worldwide disintegration of the basic faiths that in the past provided man with the hopes and convictions to shape his attitudes and behaviors in ways satisfactory both to himself and to society. Anthropologist Clyde Kluckhohn in a 1958 classic analysis of values and contemporary civilizations (referring particularly to ailing Christendom and the Communist alternative) warned: "We lack a system of general ideas and values to give meaning to human life in the mid-twentieth century."¹

4. Furthermore, in today's complex technological world, the religious or value core of a culture must provide guidance for many new personal and social problems of morals brought on by the new scientific-technological subculture. On many new problems, like genetic engineering or computer technology, the traditional subculture concerned with transmitting human values offers little or no relevant guidance. Buddha, Isaiah, Jesus, Muhammad, Socrates, and others to whom our present religious or value cultures are indebted were not yet faced with the need to provide wisdom for answering these new problems. Hedonistic value cults of personal fulfillment—the inspiration of whose goals is largely limited to precivilized genetic information on what is good—are even more inadequate for guiding behavior in a highly technical civilization.

5. States, laws, police, and armies are impotent to enforce a societal order when there is not a sufficiently widespread enculturation of suitable values internalized within the individuals of a population. Enculturation here refers to a complex pattern of information about basic human values that a culture transmits and that individuals are led to accept voluntarily because it fits their inner nature or because they come to believe it is both true and good for themselves in their circumstances. While disturbances that threaten a viable social order may, and sometimes must, be coun-

tered by physical force if the threat comes from only a small minority of dangerous deviants possessing a minor portion of physical force, the primary source of cooperative social behavior is the pattern of goals or values internalized in the individuals of the population. But we currently lack the ideas and values to generate adequate patterns of morale and morals in our scientific-technological culture.

6. Without a suitable system of internalized values that effectively motivates morale and moral behavior, local societies in the past tended to disintegrate. In that past, individuals could often escape from those decaying societies and become adapted in some other species of culture. By this means, better cultures were selected from among variant forms. But a far more dangerous situation exists as the world approaches the end of the second thousand years A.D. A scientific technology has bound the human billions into a single interdependent population under one technoculture, from which it is becoming ever less possible to escape. We face frightening new powers and frustrations. Nationalistic or state cults are dangerously divisive faiths for this world. Cultures that provide less than universal or common values for all nations of the world in some basic matters, and cultures that are not more effective than many religions of the recent or distant past in motivating peaceful rather than violent resolutions of intergroup conflict, would hardly be salvatory for mankind under today's conditions of life.

THE PROPOSAL OF CASIRAS FOR RESOLVING MANKIND'S PROBLEM

To the extent these premises are valid—that is, if institutions for transmitting convictions of credible hope and ethical duty are essential for man, and if such institutions are becoming less effective just when we need higher levels of morale and morals than ever before—then we suggest that catastrophe may be avoided and mankind may be saved by a concerted effort on a path that has been largely overlooked. We suggest that the long-evolving wisdom and power now latent in traditional religions can be renewed, reshaped, universalized, and revitalized to the extent that the wisdom inherent in religious beliefs and practices can be translated for effective understanding on the part of those whose views of reality are shaped by the sciences. Today the sciences have become the most universally credible views concerning the nature of man and his world. Impossible as such translations of religious beliefs into the conceptual schemes of modern science have appeared, we submit that recent developments in science and in understanding of religion provide as

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much evidence today that traditional religious wisdom and power may be reformed, strengthened, and universalized through integration with scientific belief systems as there was evidence a century ago for a similar transformation in the arts of medicine by using the rich, new knowledge provided by the sciences.

As a historical example for the value and the possibility of this kind of task, we cite the successful translation in the first centuries A.D. of the ideas of the early Judaic Christian religious cult that made them credible in the then-reigning "scientific world view" or philosophy of the Greco-Roman culture.

The Center takes seriously both the wisdom of religious tradition and the value of scientific undertakings, and seeks to integrate them.

We recognize on scientific as well as historical grounds that the wisdom and power of religions are the product of a long genetic and cultural evolution, like agriculture, language and literature, medicine, and transportation. We recognize that religions contain a selected wisdom and power that, like the "reality" that science seeks to understand, is never fully understood by our best theology and science. This view has recently been confirmed by scientific understandings of the *wisdom of the culture* equivalent to W. B. Cannon's classic view of the *Wisdom of the Body*. It is a view that was not yet understood by nineteenth-century humanistic, Marxist, and Freudian reformers. Some scientists today are clearer than some religious professionals about the virtue of religion and the fact that societies do not flourish without the basic human values which shape morale and morals.

CASIRAS suggests that the new scientific pictures of man today are as essential to man's understanding of his place in the scheme of things for his religious needs as they have been for his needs in agriculture, medicine, or transportation. When we speak of utilizing the scientific pictures of man to understand and help make religion more effective, we mean to include any area of science that is pertinent. We cite *Zygon* as illustrative of the *range* (including the physical and biological as well as psychological and social sciences) and quality of involvement of science.

The central aim of the Center is to formulate a specific and coherent system of belief about human destiny, a "doctrine of human destiny" which has the necessary credibility to motivate men generally toward a new level of faith and responsibility in the coming world society.

The Center's leaders have shunned as unfruitful several scientifically dubious or pseudoscientific theories that have been fre-

quently adduced because they seem to support certain elements of traditional religion. More exciting and relevant for us for our "theologizing" are the magnificent illuminations of the nature of man and his circumstances provided by the central bodies of well-tested scientific information. Here we find already developing more holistic views drawing on some union of elements from several disciplines simultaneously as they may be relevant for understanding and dealing with complex systems such as living systems. These syntheses go on under various names, such as "systems analysis," "systems dynamics," or "systems theory," and more often without any formalized name; and they have been involved in the remarkable scientific and technological breakthroughs of recent decades. We now have new understandings not available to those who even in the recent past sought to relate theology to the sciences, such as Tillich, Whitehead, Wieman, and Teilhard de Chardin, or to those who sought to provide at least semireligious reformations of programs for human salvation, such as Marx or Freud. Furthermore, we now have available from the scholarly and scientific study of religion much clearer notions of the nature as well as the necessity of religion in human life.

We shall now turn to a section on the three steps of our program of inquiry, to be followed by a section on implementation at three levels of operation.

PROGRAM OF THE CENTER

We propose a three-step program to relate the beliefs and values of religions to the conceptual systems of the sciences, and thereby to revitalize an ancient and necessary cultural wisdom and power and to reform it for greater relevance for a new age of man.

THREE STEPS OF INQUIRY

A necessary first step is an intellectual inquiry to establish conceptual clarity and relevance. As the result of recent work in the scientific studies of religion, of man, and of the world, we now have some rich new possibilities of a more meaningful translation back and forth between the traditional religious and the newer scientific formulations of human destiny and values. A phase of this inquiry would be a scientific systems analysis of the characteristic functions and patterns of religions in the transmission of basic human values. This would mean also an extension, in the light of all pertinent scientific information imaginatively used, of our understanding of ultimate hu-

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man concerns and necessities, and of our relation to the often-not-obvious requirements of the reality that ultimately rules human destiny. We need information on what religions actually do or have done, and how. We need to understand better the degree to which these *religious* functions have been carried on by elements of cultures that sometimes are called heretical or pseudoreligious, such as were the prophets or reformers of old and the Marxists or Freudian believers more recently. This inquiry implies the involvement of theologians in an attempt to relate their traditional formulations of the nature of man and his creator and sustainer to the new views of man and his world being revealed by the scientists. At the same time, we believe that many social scientists and other intellectuals need to review new and larger scientific evidence of the actual necessity and wisdom of religion for human life—an understanding which has not always been apparent in the early efforts at critical analysis. Moreover, the understanding of evolution, both within the pure sciences and for its application to human meaning and destiny, requires the further *integration* of the new information coming from the physical, biological, psychological, and social sciences. This first step also implies a need for further inquiry and clarity on the role of “information” and “belief” as well as “operant conditioning” and “genetically programmed responses” in motivating man’s feelings and behavior.

The *second step of inquiry* is to use the results of the first step to show what the fundamental elements are of traditional religious wisdom, faith, and hope that may be revalidated and hence revitalized in the light of scientific understandings. The hope here is to save our culture from the loss of vital resources of wisdom found in traditional religion. We have reasons to suspect that religious wisdom has become incredible not because of invalidity in its spiritual and ethical wisdom, but largely because it is presented in the imagery of a world view that is becoming obsolete, a world view that comes from obsolete “sciences.” For credibility and relevance today, the traditional wisdom of religion needs now to be translated and presented in the context of the new and sometimes radically different scientific imagery of the realities of man and his world. The scientific view is the one in which men around the world have come to believe as providing our most valid picture not only because of its wider success in explaining things, but especially because its validity is vouched for by its miraculous powers for the new technologies (including medicine) that have so radically transformed man’s situation in the world.

But there has thus far been little or no successful integration of the scientific view with man's religious concerns. We believe this now can be done. Even though some humanists and apologists for religion have supposed that the psychosocial sciences necessarily imply that religions were worthless myths, or that physical sciences imply that man is an alien accident in a world that evolves without direction, some of the leaders of these and other areas of scientific culture have been pioneers in providing scientific grounds for understanding that religions are in fact repositories for wisdom and that man is not alien in the cosmos. Some further examples of specific beliefs that have had tremendous significance for morale and morals, and which may now be justified and revitalized by reinterpretations in the modern scientific frame of reference, include the following (interpretations of these and others have already been published in *Zygon* and elsewhere):

1. The belief in a "transhuman, sovereign power" that did create and does sustain, and ultimately determines, human destiny, a power characterized by laws that must be obeyed if man is to have life rather than destruction; such doctrines can be shown to correspond very closely with contemporary scientific views of natural selection, adaptation, and evolution at all levels from molecules to men.

2. The belief in some effective continuity of an individual's significance (even for the patterns of his basic substance) beyond the grave finds large support in recent scientific views of the continuity of the genotypes and the culturetypes of *Homo sapiens*.

Rational grounds for various virtues become clearer through a scientific examination of the reality of man and his world. For example:

1. Humility arises naturally if one understands from evolutionary views that man's basic powers and skills for life are the heritage given him from a billion years of genetic trial and error and a million years of cultural trial and error.

2. Altruism and social concern are generated by the view that the sciences support as much as the poets, and with clearer evidence, the fact that no man is an island, but all are part of the main. Ecological and living systems are interconnected webs.

3. Repentance comes more readily if one understands the notion that life and its advancement is necessarily a trial-and-error program of learning, that errors (something like "original sin") are inherent in the nature of the process, and that a system of reality of transcendent power, "natural selection," "is daily and hourly scrutinizing throughout the world, every variation, even the slightest; rejecting

that which is bad, preserving and adding up all that is good" (Darwin).

4. Hope, courage, and joy in the search for life, in spite of seemingly overwhelming adversities, are more reasonable attitudes for those who understand that in spite of thousands of failures—in fact, often just by means of them—eventually a higher level of life in which they themselves may actually participate is coming into being and will endure.

A third step of inquiry—imperative even if we are to continue life at the present level of science and technology, to say nothing of entering the next higher stage of a cultural evolution—is the reformation of traditional religious belief and practice to become more relevant for the new perspectives and conditions of life as religion adapts to a fantastically fast-advancing world society dominated by science and technology:

1. *To resolve new problems of morals.* Included are, for instance, the dangers to the planet's ecology such as those stemming from the new technologies of public health with the consequent population explosion; or stemming from the new technological powers that overreach formerly existing natural restraints on man's capacities for exhausting or disrupting the natural resources on which life depends. Also, there are new dangers to human life posed by genetic engineering, or by the control of man's feeling and behavior through new technologies for manipulating and structuring the inner behavioral patterns of the brain.

Critical to the moral problem is motivation. Religions in the past have successfully evoked motivation through the hope of reward and fear of punishment by superhuman powers, which are no longer effective when no longer genuinely believed. But, we believe that the selective forces pictured by the sciences as inherent in the reality that has operated to structure and motivate human behavior throughout our evolution to date can be shown to constitute a superhuman sovereign power which men must heed. The relevance of the scientific for the religious revelations concerning the sovereign and ultimate powers determining human destiny can today be made clear in dialogue between scientists and theologians, and thus revitalize a religion that can more effectively motivate moral behavior by inducing genuine convictions about ultimate consequences.

2. *To resolve new problems of morale.* Included as problems for morale are the discouraging conclusions often drawn from incomplete scientific pictures, such as the conclusion that life is completely determined so that moral responsibility or personal hope is

nonsense; or that life is a meaningless accident, absurd, and ultimately doomed. The scientific pictures of the human situation as we approach the year 2000 offer a credible view that life, including human life, is not a mere accident in an indifferent cosmos.² While we now know that chance events are necessarily involved in the creation of new levels of life's patterns, we also have evidence that their selection is not by accident but by a nature and law that did destine their evolution; and we can understand that man, in perceiving and participating in this cosmic destiny, has a significant role in this evolving scheme of things which can satisfy his hopes and redeem his tribulations. Another kind of discouragement to man's morale, based on an incomplete picture from science, is the notion that cybernetic and computer technology is about to destroy the significance of humanity by replacing man with machines that can do better than he can morally as well as technically. Many such novel threats to man's morale require not so much intuition from the gut or luck in a game of chance as they do sound scientific information, if man is successfully to overcome them. In general, we have begun to coordinate many of today's more credible scientific pictures with man's religious needs for valid hopes and significant meaning fully satisfactory to his spirit, heart, and gut.

3. *To resolve the problem of creating the cultural universality of values necessary for peaceful cooperation in the interdependent community of men on the spaceship Earth.* The differences among the traditional religions and among the upstart nationalisms and other semireligious social groups have often led—even among those that have promised the reverse—to war and violence, which, now more than ever before, must be outlawed. If all peoples are to be bound satisfactorily together, the religions of the world must provide sufficiently common goals and understandings to resolve differences of opinion without recourse to violence that would be suicidal to the newly interknit world population. To the extent that religions and the values they propagate can be expressed in a conceptual scheme that accords with the scientific concepts or symbol systems in which most of the world has faith as a valid description of reality, we may expect that the credibility of religious faith and its consequent power to shape morale and morals will increase. Also, because the scientific community of the world has in fact pioneered new ways in which to attain strong faith in the "truth," or valid ways in which to resolve without physical violence the differences in developing idea systems, the ideological sources of violence among conflicting religious, or social, or political philosophies can be expected to decrease as they embrace

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this approach to "truth." Through integration with the sciences, a sufficiently transworld or universal community of religious and moral values may become realized enough to make possible the nonviolent resolution of local, national, and international tensions.

PROGRAM IMPLEMENTATION

To carry out the purposes of CASIRAS and the three steps of its program of study and development with optimum rapidity and economy, the Center would seek to bind together in a more or less loosely knit collegium a significant number of those still rather rare and widely scattered scholars and creative minds in various disciplines who have already shown interest in and capacity for constructive integration of the functions and beliefs of religion with the beliefs of the contemporary sciences. For this collocation of talent we envision elements of several institutional models that have been successfully used for similar objectives. But basic is the model of the Royal Society of London for Improving Natural Knowledge, which arose out of what Robert Boyle in 1646 called "The Invisible College." It was organized to facilitate the intercommunication and collaboration of widely scattered "natural or experimental philosophers" (scientists) in a time when the established colleges and universities did not consider them very seriously. Moreover, then as now, the development or application of new knowledge required centers of communication transcending the institutional boundaries of universities and nations. CASIRAS might be called an "Invisible College for the Development of Religious Thought in the Light of the Sciences," a project which in this century has not been considered seriously in the scientific departments of the universities or in theological schools.

Several contemporary institutional models illustrate how this program of advanced study would operate practically and fruitfully. One is the Neurosciences Research Program developed ten years ago under Francis O. Schmitt of the Massachusetts Institute of Technology and housed in a center at the American Academy of Arts and Sciences, where a nuclear staff has raised the funds, collocated numerous meetings of the "associates," and stimulated new interdisciplinary integrations that have advanced our understanding of the brain and disseminated these in a significant series of publications. Among other related models that guide, but do not limit, our proposals are the *Daedalus* conferences of the American Academy of Arts and Sciences, which have produced many significant books on interdisciplinary contributions to understanding man's problems;

the Gordon Research Conferences, which have provided information (but not direct publication) on "hot" points of research, and live association with other experts from different laboratories and universities in various areas of chemistry and biology; the Marine Biological Laboratory and the Woods Hole Oceanographic Institution; the Macy Conferences developed by Frank Fremont-Smith; the Center for the Study of Democratic Institutions; the Center for Advanced Study in the Behavioral Sciences; the Worcester Foundation for Experimental Biology; and the Institute for Society, Ethics, and the Life Sciences (the Hastings Center).

Our proposed Center would provide the machinery and forces for suitably stimulating and interrelating the activities of a number of selected persons as fellows, associates, graduate students, and creative artists. Most of these would be available to come together only for occasional meetings. Some might be able to participate for longer periods on research or teaching teams at some location, especially financed. We are already in contact with several hundred scholars who share in large measure our vision and who are capable and ready to work part or full time for the purposes we have been setting forth. They are distributed geographically around the earth and in various areas of science, including the physical, biological, and psychosocial sciences, as well as in history, philosophy, and theology. They range from international pioneers and elder statesmen of their fields to recent Ph.D.'s.

Since for practical purposes most of them could not be available to come together for any length of time except in summer programs, and since this is also the time when we could expect an optimum number of religious professionals to be free for more than a week or two for continuing education and could expect theological students for summer school programs, we plan to select a site suitable for summer programs, attractive for their families as well as for those engaged in study, development of new understandings, reading, writing, lectures, seminars, etc.

The center proposes to operate simultaneously on three levels.

ADVANCED STUDY

The first level of operation is advanced study by the associates and fellows of the Center. In most cases this study would be done wherever they are in their regular occupational niches and would have ties with their regular research and study as they ponder its implications for man's understanding of his larger meaning and

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destiny and his proper hopes and duties in the scheme of things. However, most of the associates and fellows would be bound together more actively than the members of an ordinary scholarly or scientific research society are by their annual meetings and journal reading. Development in a new and complex interdisciplinary field, pioneering in views not yet accepted by a culture, is facilitated by more frequent and prolonged personal contact with others in the field. In addition to weekend or week-long conferences from time to time during the academic year, associates and fellows would come together in the summer, some of them for a week or two, others for much of the summer, for formal and informal communication, study, writing, and teaching. A few may be resident together during sabbatical years or otherwise as circumstances may permit and make desirable.

DEVELOPMENT OF YOUNG SCHOLARS

A second level of operation is to aid the development of young scholars in the fields of religion, philosophy, and the sciences for participating in this general development of religion in the light of the sciences and to prepare them for the dissemination of the new understandings through their teaching in various universities and theological schools. For this purpose we propose postdoctoral studies and doctoral programs. Any elements of doctoral degree programs offered by CASIRAS would be worked out in collaboration with selected universities and theological schools, presumably where some of the Center's fellows and associates were normally resident. The feasibility of this has already been explored with certain institutions. The postdoctoral programs would offer scholars and scientists of any age, selected by a committee of senior fellows, an opportunity to be in residence with other pioneers in this field for study and daily discussion and development of their thought and writing in the area.³

BROADER COMMUNICATION

A third level of operation is broader communication of the results of inquiry and development. Several phases of communication are proposed:

1. *Communication at advanced levels* of theoretical and technical concepts to others concerned with the same problems by means of the already existing *Zygon*, whose editing and management is already transferred from Meadville/Lombard Theological School to the new Center, and by means of publication in other periodicals and books.

2. *Communication to creative artists* of the new religious visions of man's meaning, hope, and duty in the light of the sciences. We would include writers, poets, painters, dramatists, musicians, and television and motion-picture directors. This would include symposia and workshops for the purpose arranged by the Center.

3. *Communication to religious professionals* wishing to explore this field in their program of continuing education. Contemplated are both noncredit conferences, lectures, and seminars, as well as programs for men pursuing advanced degrees in ministry, an arrangement that would involve the cooperation of certain existing theological schools, some of which have already consented in principle.⁴

4. *Communication to men preparing for religious professions.* This would be done in two or more phases: first, indirectly, through faculty who return to their posts at schools of religion and theology after they have been fellows at the Center; and second, directly, through cooperative summer-session programs for credit within the degree programs of certain affiliated schools.⁵

5. *Communication via mass media.* It is our belief that a primary load of religious communication inevitably will be through the mass media, whether or not related to the presently existing ecclesiastical institutions. The Center envisages some initial cooperation, through phase 2 above of its communications program, in conveying via mass media some of the traditional religious wisdom reformed and revitalized in the light of the sciences, as well as some of the new moral imperatives and sources of hope for man's spirit. We understand "mass media" to include television, radio, cinema, popular magazines, books, and computers.

OUTLINE OF INSTITUTIONAL STRUCTURE

1. *An independent center* related to but not controlled by other academic or religious institutions, and thus subject to neither departmental priorities nor rivalries, which have plagued some recent efforts to relate science and values, nor to the limiting effects of sectarian identification.
2. *Controlled by its own board of directors.*⁶
3. *Responsive to a board of advisers* of scholars from several disciplines and institutional leaders who sense the value of this particular enterprise and whose capacity to contribute to this inquiry has already been demonstrated.
4. *Independently funded* by gifts and grants, in order that the progress of the Center not be subject to the financial limitations and vicissitudes of some other institution.

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5. *Staffed, initially at the CASIRAS headquarters, by at least three resident senior fellows* selected for their common vision and demonstrated capacity to work together to accomplish the purposes of the Center. With supporting staff, they will develop programs of inquiry, writing, and publishing, and organize the summer sessions as well as the occasional conferences and other operations throughout the year. Additional resident and senior fellows should be engaged as soon as circumstances and funding permit.
6. *With adequate supporting staff and resources.* Initially: for editing and publishing *Zygon*, already in its seventh volume, and other publications as they appear to be warranted; for the development and management of the summer sessions, weekend institutes, and educational programs; for a small working library and bibliographic aids; for fund raising and public information; and for clerical and bookkeeping tasks. Later: for the full range of all three levels of the program.

BACKGROUND

During the past two decades, prominent scientists from the physical, biological, psychological, and sociological disciplines, as well as theologians, philosophers, and historians, have been engaged in exploratory efforts in this particular inquiry and development. Some of these men have been associated with the Institute on Religion in an Age of Science (IRAS), whose summer conferences and other work in this field originated in 1954 out of the concerns of the Committee on Science and Human Values of the American Academy of Arts and Sciences. Some of them have been associated with the Center for Advanced Study in Theology and the Sciences (CASTS), established in Chicago in 1964 at Meadville/Lombard Theological School, affiliated with the University of Chicago. Some of them have been associated with *Zygon*. Some have been associated with the Society for the Scientific Study of Religion (SSSR). Others, sometimes associated with similar groups, are also involved.

This proposal grows out of tentative achievements of some of these scholars in developing a more or less common or significantly overlapping understanding both of the current human predicament and of the necessity for a value system articulated within or consistent with the conceptual framework of the sciences.

These same men have arrived at the common conviction that this scientific understanding can be significant for the revitalization of the religious and ethical wisdom in the several enduring traditions

and for generating new wisdom to meet the new ethical and social problems of the world shaped by modern science and technology.

PROGRESS REPORT

CASIRAS, which is being incorporated as a nonprofit organization, has in addition to its twelve Directors (see n. 6 below) a distinguished interdisciplinary Advisory Board of eighty persons. Several dozen of these have indicated readiness to serve part- or full-time as research fellows and faculty of the Center. Two of the initially affiliated schools (Meadville/Lombard Theological School and Hartford Seminary Foundation) have contributed the salaries of two senior fellows and some support for general and *Zygon* office expense for one year. With the Institute on Man and Science at Rensselaerville, New York, one interdisciplinary colloquium of scholars was held in 1972 and at least one seminar for clergy and scientists is scheduled for the summer of 1973.

Funds must now be secured for continuing office staff and *Zygon* operations, then for other program elements outlined.

Readers of *Zygon* who may wish to proffer suggestions or to help with respect to any aspects of this Proposal (including its philosophy, programs, ties with schools, personnel, and sources of funds) are invited to communicate with Ralph Wendell Burhoe, Acting Secretary, CASIRAS, 5711 Woodlawn Avenue, Chicago, Illinois 60637.

NOTES

1. Clyde Kluckhohn, "The Scientific Study of Values and Contemporary Civilization," *Zygon* 1 (1966): 233.

2. Monod to the contrary notwithstanding, see J. Bronowski, "New Concepts in the Evolution of Complexity: Stratified Stability and Unbounded Plans," *Zygon* 5 (1970): 18-35; and Theodosius Dobzhansky's review of Jacques Monod's *Chance and Necessity*, in *Science* 175 (1972): 49-50.

3. A proposed program of the Center for communication to religious professionals, to men preparing for religious professions, and for doctor of philosophy candidates is illustrated in the appended "Science and Human Destiny." This program is for degree candidates; but the Center also plans to offer institutes requiring less time and effort for more general communication of findings.

4. *Ibid.*

5. *Ibid.*

6. The list of present members includes: Sanborn C. Brown, professor of physics and associate dean of the Graduate School, Massachusetts Institute of Technology; Ralph W. Burhoe, professor and director of the Center for Advanced Study in Theology and the Sciences, Meadville/Lombard Theological School; Kenneth Caughen, professor of theology, Colgate Rochester/Bexley Hall/Crozer Divinity School; Everett R. Clinchy, president of the Institute on Man and Science, Rensselaerville, New York; Theodosius Dobzhansky, professor of genetics, University of California, Davis; Donald Szantho Harrington, minister, Community Church, New York, N.Y.; Philip Hefner, professor of systematic theology, Lutheran School of Theology at

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Chicago; Lawrence Kohlberg, professor of education and social psychology, Harvard University; Ervin Laszlo, professor of philosophy, State University of New York, Geneseo; George A. Riggan, Riley Professor of Systematic Theology, Hartford Seminary Foundation; Ormsbee W. Robinson, director of university relations planning, IBM Corporation, Armonk, New York; and Malcolm R. Sutherland, president and Robert Collyer Professor of Church and Society, Meadville/Lombard Theological School, Chicago.

SCIENCE AND HUMAN DESTINY

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There is widespread evidence that in the twentieth century most of the world's traditional religions and philosophies are failing to perform adequately their vital functions in the burgeoning, new, complex, interdependent, world-embracing, scientific-technological society, which now embraces more than three billion persons. There is much evidence that in all societies there is a decay of effective religion, and hence of morale and morals. This threatens social and personal integration. In the more economically and culturally advanced societies, increasing numbers of people, especially among the sensitive youth, are disillusioned about traditional values and are grasping at any straws to replace them. The increasing freedom to abandon beliefs and value patterns that to them no longer seem to make sense has thus far manifested itself too often as a freedom *from* the old ways and too seldom as a freedom *to* or *for* more adequate ways. This freedom has not yet given rise to effective, positive goals or values that are capable of providing the necessary, stable structuring of the complex new webs of intra- and interpersonal feeling and behavior for life in the radically new circumstances of a higher culture. Instead, many are regressing to untutored genotypic levels of motivation, too much of which would make man inviable.

Fortunately, however, new knowledge in the sciences and about religion has provided grounds for believing that traditional religions embody a necessary wisdom for shaping man's morale, morals, and ultimate viability;