Biography

RALPH WENDELL BURHOE: HIS LIFE AND HIS THOUGHT

III. Developing the Vision among the Unitarians, 1954–1964

by David R. Breed

Abstract. This third installment in David Breed's intellectual biography of Ralph Wendell Burhoe focuses upon the impact of his thought on the Unitarian Universalist Association and that group's role in Burhoe's career. Dana McLean Greeley, elected president of the American Unitarian Association in 1958, was a key figure in Burhoe's eventual participation in the project, "The Free Church in a Changing World." Burhoe's emphasis on the need for doctrine that could communicate religious wisdom in terms of science stood in tension with free-church tradition. Nevertheless, the section of the project's final report, titled "Theology and the Frontiers of Learning," largely accepted Burhoe's program for a new natural theology based on science. This project brought Burhoe's program to the attention of the denomination and led to the invitation in 1964 from Malcolm Sutherland, on behalf of Meadville/Lombard Theological School in Chicago, of which he was president, for Burhoe to implement his program in the new curriculum of that school. Burhoe accepted.

Keywords: Unitarians; Dana Greeley; Malcolm Sutherland; free churches; liberal religion; natural theology; Meadville/Lombard; "Frontiers of Learning."

Burhoe's vision, as outlined in the previous installment, influenced a number of Unitarian leaders, who were associated with the Institute and concerned to deepen the theological dimensions of their denomination. The purposes of IRAS and the kind and quality of

David R. Breed is an independent scholar and systems consultant living at 5218 S. Dorchester Avenue, Chicago, Illinois 60615. This article is excerpted from his 1988 Th.D. dissertation at the Lutheran School of Theology at Chicago, "Toward a Credible Faith in an Age of Science: The Life and Work of Ralph Wendell Burhoe."

[*Zygon*, vol. 26, no. 1 (March 1991).]
 ISSN 0591-2385

its activities stimulated them to try a similar approach (Greeley 1971). In two related activities, Burhoe played a significant role, and he involved persons connected with IRAS. In 1959, six commissions on The Free Church in a Changing World were given the task of assessing the shape of liberal religion in the Unitarian and Universalist churches and stimulating thought about what might be regarded as the common message and mission of the new Unitarian Universalist Association. And in 1960 a theology and science emphasis was developed in the educational program of Meadville Theological School in Chicago. Burhoe's two related activities contributed to the establishment of a research and teaching center, and of *Zygon: Journal of Religion and Science,* within Meadville, a denominational theological school.

Thus the 1956 IRAS "Proposal for Program" was on its way to being realized, although not in the form that IRAS leaders would have anticipated. The establishment of a center and a journal far outside the Boston area and in connection with a denominational theological school was far from the thinking of most of the scientists and scholars associated with the American Academy. Reflecting on his Academy years, Burhoe later wrote, "For various reasons, the Academy Committee [on Science and Values] could not work directly with religious institutions, and many in the Academy wondered why one should bother with dying institutions" (Burhoe 1967, 17). In fact, he reflected, "My friends in the Academy . . . urged me to stay [in Boston, with the Academy] to the point that I had to bias weight on the other side of the argument to go into a religious institution." (Burhoe 1967, 18). Because Burhoe's primary concern was revitalizing religion, developments in the Unitarian church seemed most promising (Burhoe 1967, 17). Also, they gave him the opportunity to articulate his vision more fully in relation to the liberal religious tradition.

Many within the liberal tradition feared that any effort to articulate a theological consensus would compromise the basic principle of religious freedom. Conversely, Burhoe and some other Unitarian leaders believed that the identity and health of the liberal churches seemed at great risk without some articulation of basic beliefs and doctrines. Accordingly, in his work with the Commission on Theology and the Frontiers of Learning he developed his vision for a bold reformation of religion in the light of the sciences. This vision implied the necessity of doctrine, the possibility of doctrinal consensus without sacrifice of freedom, and the revitalization of traditional religious wisdom integrated with contemporary scientific knowledge. One significant outcome was a recommendation to

establish a research center along the lines of Burhoe's vision. Burhoe's involvement with such developments within Unitarianism shows his concern to develop theology in the context of modern science so as to effect the revitalization of religion in contemporary culture.

Theology and the Frontiers of Learning

Burhoe was an active member of the Arlington Street Church, where Dana McLean Greeley was pastor. Greeley knew of Burhoe's involvement with the Academy's Committee on Science and Values, and he wanted to make a connection between that group and liberal church leaders, particularly those in the Coming Great Church conferences on Star Island. In 1952 he invited Burhoe to make such a connection. The outcome was the 1954 conjunction of these groups and the formation of IRAS. Greeley, a charter member of IRAS, served on its council. In IRAS and in Burhoe's vision for revitalizing religion, Greeley saw potential for the development of a program in the Unitarian churches. Then in 1958, Greeley was elected president of the American Unitarian Association (AUA), and consultations with Burhoe were part of a process that led to a proposal for a department on Religion and Science and the Frontiers of Learning in 1959.[1] In this period, plans were being made to merge the AUA and the Universalist Church of America into a new Unitarian Universalist Association. This thrust, in turn, expanded into six commissions to assess the religious climate in the new denomination.

The six study commissions on "The Free Church in a Changing World" were approved on 21 September 1960. Burhoe was appointed secretary of Commission II, on "Theology and the Frontiers of Learning," and named as one of its nonclergy members. His commission presented a preliminary report to the delegates of the organizing meeting of the Unitarian Universalist Association in Boston, 11–13 May 1961. Together with Robert Tapp, the chair of the commission, Burhoe wrote and edited the final report, which was published and presented to the UUA General Assembly in Chicago in May 1963 (Unitarian Universalist Association 1963).

The preliminary report set forth the task of Commission II, on Theology and the Frontiers of Learning:

> The function of this Commission is to review and clarify the basic assumptions or beliefs found within the denomination, to intensify the confrontation of our religious faith with new knowledge in the various fields of learning, and to facilitate constructive thinking towards a creative religious philosophy and convictions for our time (Unitarian Universalist Association 1961).

There was fear in some quarters that the commission would attempt to write a new creed for the denomination. This fear was also addressed in Robert Tapp's report on Commission II:

> Our Commission plans to strengthen . . . those who take seriously the need for continuous critical thinking in religion. Within the free church there cannot be, and should not be, theological conformity. There may well emerge a consensus, however, if we come together seriously enough and long enough. Such a consensus is already evident within the freedom of scientific inquiry. Our conviction is that vital religion is not so different from science but that a similar community may grow here (Unitarian Universalist Association 1961, 10).

The report went on to state that "liberal religion thrives on the frontiers of learning and sees the sciences not as a threat, or even a challenge, but as an exciting source of wisdom for our lives and our dreams" (Unitarian Universalist Association 1961, 11). In spite of the fear of creeds as indicative of theological conformity, the hope of a theological consensus drawing on the resources of the sciences indicates the influence of Burhoe's vision in the work of the commission.

The prevalence of an anticreedal reaction to the work of the commissions was symptomatic of a key problem facing the denomination. Paul Carnes, in his "Commentary" on the final reports of the commissions, observed that "the presence of the fear indicates that we need a more thorough awareness of our Universalist and Unitarian traditions" (Unitarian Universalist Association 1963, 162).

Perhaps in some quarters the free churches' respect for the reason of individuals and freedom or toleration for differences of religious belief had become uncritically dogmatized into suspicion of any attempt to give positive expression to that which constitutes the faith of religious liberals. It was this problem that the commissions were formed to address, so that some beginning might be made to stimulate the expression of a shared religious stance.

This background helps make clear a number of factors influencing Burhoe's writings. First, he had to fight an uphill battle to affirm the desirability of a religious doctrine based on common features of personal or religious belief. Second, he had to show that the development of such doctrine would not compromise freedom of belief. Third, he had to promote the idea of rationality of belief. Fourth, he had to fight distrust of traditional religious doctrines. The fears he addressed are deeply rooted in the liberal tradition. The free church historically has attracted those who found traditional Christian orthodoxy—Catholic or Protestant—repressive. Therefore, attempts to state any principles of belief were highly suspect, because it was feared that this would only lead to a new orthodoxy.

If this were imposed on the basis of some authority, it would abrogate all personal and religious freedom.

"Some Thoughts on the Future of Liberal Religion" (1962)

The reaction within the denomination against a consensus on religious doctrine stimulated Burhoe to address the problem. He saw this resistance as a fundamental obstacle to revitalizing religion. Therefore, if there were to be an integration of religion and science, it would have to be worked out conceptually, accommodating the full range of religious and scientific scholarship. In 1962, in his article "Some Thoughts on the Future of Liberal Religion," he stated that the future of religion depends on a "well-developed, coherent and . . . homogeneous structure of religious beliefs and doctrines" (Burhoe 1962a, 16). Characteristically, Burhoe was not concerned to offer specific doctrines; rather, he tried to motivate the denomination to accept the serious challenge of developing such a structure with the aid of the sciences.

Burhoe appealed to the idea that world problems might be resolved without recourse to war if some worldwide religious consensus could be achieved on the basis of freedom and reason.

> The key doctrines of liberal religion may be said to be the essential foundation stones for building a peaceful world society: the doctrine of freedom (respect for the personalities and convictions of other men), the doctrine of the use of reason rather than authoritarian decree to establish common values, and the doctrine of the quest of the not-yet-achieved broad and encompassing religion that binds all men in brotherhood (Burhoe 1962a, 12).

He argued that the strengths of liberal religion are also its weaknesses. Because its proponents commonly believe that freedom and rationality are incompatible with doctrinal agreement, they leave matters of belief to the individual. Tolerance of a wide variety of religious beliefs implies, however, that no particular beliefs or doctrines are important.

> This makes one wonder whether liberals, in their fear of arbitrarily imposed "final truths," have come by an opposite route to the same conclusion that seems prevalent among the neo-orthodox as a result of their fear of the "truths" of science: that man's reason is impotent to deal with questions of religious belief (Burhoe 1962a, 14).

Burhoe proposed that the way in which scientific doctrine is developed can serve as a model for liberal religion. Scientific doctrine is not a matter of individual opinion but a system of coherent doctrine, built up out of pieces validated by complex and universally

accepted procedures. Scientific doctrine does not violate the sanctity of the conscience, for "the ultimate arbiter is usually said to be what any individual can observe to happen or to be" (Burhoe 1962a, 20). And it need not be feared as authoritarian, for it is always undergoing revision. Burhoe argued further that if liberal religion built its religious doctrines "with the tested bricks of scientific doctrine," it could produce "a doctrine which will be the basis for a moral and spiritual conviction necessary for creative world community in an age of science" (Burhoe 1962a, 22).

Burhoe's vision spoke directly to the doctrinal impasse of the UUA. This, no doubt, was the reason denominational leaders sought his consultation and leadership. Drawn into this environment, Burhoe was given an opportunity to develop his vision, for it provided a possible approach by which Unitarians and Universalists could express the content of their faith in an age of science. Indeed, Burhoe's contributions were concerned with demonstrating that a scientific approach to religion would produce a bona fide theological understanding that would not compromise the liberal doctrine of freedom.

GOD AND THE WORLD: LEARNING THE COSMIC LAW OF LIFE

The commission also met periodically to discuss papers of its members, and Burhoe presented one of three major papers at such a meeting on 25–26 September 1961. The theme to be addressed was "The Concepts of *Theos* and *Kosmos,* the Stage of the Human Drama," and Burhoe's paper, "Religion and the Kosmos of 20th-Century Science," developed his vision around the relation of God and the world. It argued for the need to formulate a theology that was well integrated with contemporary cosmology. The first part of the paper developed the God-world relationship, using the image of the cosmic law of life. By selecting this guiding image, Burhoe showed his kinship with the tradition of natural theology. In particular, this image represents an idea similar to, if not the same as, the Stoic conception of the logos, especially the *logos spermatikos.*[2] Burhoe then explored the idea that the evolution of life can be viewed as learning the requirements of the law of life and passing acquired knowledge of it to subsequent generations. He then developed the idea that religions can be viewed as cultural systems in which knowledge of the law of life for human survival is acquired and transmitted. In the final section, he argued that human culture is in a precarious position because the religious information necessary for

life has not sufficiently incorporated the new requirements and understandings that have been illuminated by the sciences; hence, the integration of scientific knowledge into religious doctrine is immediately essential for the continued survival of human culture.

Of particular note is the fact that Burhoe placed at the beginning of his paper a quote from a paper that the anthropologist Anthony F.C. Wallace had just presented at the 1961 IRAS Star Island Conference. Evidently, Burhoe did not have the time to work Wallace's idea into the body of his paper, but he saw in it support for his ideas on the function of religion:

> But religion does not offer just any solution: it characteristically offers a solution which assures the believer that life and organization will win, that death and disorganization will lose, in their struggle to become the characteristic condition of self and [of the meaning of the] cosmos. And religion further attempts to elucidate and describe the organization of self and [of the meaning of the] cosmos. Religion then may be said to be a process of maximizing the quantity of organization in the matrix of perceived human experience. Religion maximizes it, perhaps, beyond what rational use of the data of this experience would justify, but it thereby satisfies a primary drive. We must, I think, postulate an organization "instinct": an "instinct" to increase the organization of cognitive perception. Religion and science, from this point of view, would seem to be the more direct expressions of this organizational instinct (Burhoe 1961a, 38–39).

Wallace's observation that humans are programmed with a drive to organize their world of experience supports Burhoe's basic argument, for he wants to show that this drive is rooted in the very nature of the cosmos as the drive toward life and more abundant life.

Burhoe began his paper with a brief argument to suggest the identity of the concepts of theos and cosmos:

> But if the total phenomena of the universe are considered to have a common hidden source, then the terms 'god,' 'spirit,' or 'theos' may be said to denote this one, common, universal source of the cosmos. And if, as in a dominant philosophy of modern science, the hidden sources, or causes of phenomena are taken along with the phenomena themselves to be inseparable from the nature of the world, then it becomes difficult to separate the denotation of 'theos' from that of 'kosmos' (Burhoe 1961a, 1).

Burhoe's concept of God, characterized by a radical immanence, functions heuristically as a means for elaborating the God-world relationship in terms of contemporary cosmology.

Contemporary science postulates that the cosmos is an "ordered, harmonious, seamless fabric," and the laws by which humans describe its structures and operations are presumed to be universal, potentially unified or integrated, and inseparable from the events that reveal them. This postulate, which has encouraged conceptual

integration among the separate sciences in this century, underlies the development of evolutionary theory, which understands the human to be an event in a continuous process of selection of viable patterns of existence.

A page or two later, Burhoe says:

> It should be noted that the concept of "selection" is central for cosmic and local evolution. Selection is a concept that says the environment or kosmos determines what will be allowed. . . . It sounds awfully like the Hebrew Psalmist's statement that man should seek the law of God, for those who abide by it will prosper and those who flout it will surely perish. . . . The "selector" in [contemporary] cosmography is firmly believed to be inseparable from the nature of the lawful phenomena of the total cosmos. . . . Hence one can conclude that individual and social human life will flourish or perish according to whether men operate in accord with what these laws and conditions say will be permitted or not be permitted as patterns of life. . . .
>
> However, man does not know much about the laws of the cosmos and their requirements for his potential development. . . . As a finite creature he has been endowed by his creator, the cosmos, according to contemporary cosmographers, with the potentiality to grow in favor with his creator indefinitely to the extent that he serves that creator—that is, to the extent that he succeeds in discovering and living in accordance with the requirements presented by that creator and cosmos. In fact, the more man incorporates this law (cf. the religious doctrine of divine incarnation) the more he becomes identified with it, and becomes a co-creator in the events of the universe. But the moment he turns his back on the law of the cosmos, then he loses his life. This, I think, is a fair statement of the implications of the beliefs commonly held by contemporary cosmographers in the various sciences (Burhoe 1961a, 3–4).

This section extends a concept of law, embedded deep within the Judeo-Christian tradition, to include a cosmic evolutionary sense. Doing what is required by the law maintains a covenant relationship with God, for both the individual and the community. From this perspective, adhering to the law is intimately connected with learning the law, that is, gaining knowledge of the requirements. It was to this task that Burhoe turned his attention.

In the next section, "Learning the Cosmic Law of Life," Burhoe developed the idea of the evolution of knowledge from his conference proposal, "On the Nature of Truth" (Burhoe 1957, 1). Citing Ralph Gerard's idea that the "fixation of experience underlies evolution, it underlies development, and it underlies learning," Burhoe gave a definition of learning that draws upon the evolutionary process of trial and error. "Learning is a name for the many different mechanisms of irreversible changes which produce progressive development, the underlying dimension of all becoming" (Burhoe 1961a, 5a). Viable patterns are determined by the cosmic law of life:

"Certain patterns are bound to arise, even if only on a probabilistic basis; and once arisen are bound to persist and to enter in the determining of future patterns of events" (Burhoe 1961a, 5). From the smallest particles to the complex human organism, all entities are involved in countless trials of relatedness. "Each time they hit upon a viable pattern, it was automatically stamped with approval by the selector, the cosmic reality, and the new pattern of structure and behavior persisted, and continues in living species, including man, until this day" (Burhoe 1961a, 4). The learning of viable patterns is cumulative, and with the appearance of self-reproducing complex molecules we have the beginning of life. The self-duplicating DNA molecules had accumulated the knowledge of a long series of trials and errors and "had 'learned' to form complex patterns that could persist and evolve by new adaptations" (Burhoe 1961a, 5). The DNA molecules became the vehicles for genetic learning, the accomplishments of which were faithfully transmitted from generation to generation.

With the evolution of complex central nervous systems, a new and faster method of learning was made possible for the organism. This method is different from genetic learning in that its products can no longer be transmitted in the genetic code from one generation to the next. With the arrival of the human animal, "a still newer method of learning came into bloom which allowed the learning of the individual through his central nervous system to be transmitted to future generations"—namely, cultural transmission or cultural inheritance, whose main organ is language (Burhoe 1961a, 5a). Three subsequent emergents are mentioned: "The symbolic system of the language, which had grown for thousands of years by a kind of unconscious selection for its efficiency and value, was found to be able to produce new wisdom simply by means of its own operations [reason and logic]." Science added to reason and logic "the test, the proof, the observations, the experimentally contrived observation." A by-product of the sciences is the computer—an "auxiliary extension of the brain." Burhoe then concluded this description of the evolution of the learning of the cosmic law of life: "With all these marvelous new creations in the human capacity to learn and know the law of the cosmos, man stands at the threshold of a [new] kind of life" (Burhoe 1961a, 6).

Introducing a discussion of "The Function of Religion in Relation to the Cosmic Law of Life," Burhoe pointed to the conservative element in the evolution of learning. "While natural selection built in the capacity of the genes to mutate, change, discover, or learn, it nevertheless definitely limited this capacity." The process of sexual

recombination, which emerged as a mechanism for controlled or limited mutation, permits the recombination of the already tested and viable genotypes in the gene pool of a species into countless variations of the genotype that thereby have a high probability of viability. "When a pattern of 'know-how' for life has been achieved and fixed, and when changes (mutations or learning) do not provide a more viable outcome, then selection establishes the viable pattern without change." In science, one finds tremendous conservative forces that insist on the faithful transmission of the body of the scientific tradition before a new scientist "is allowed to create new variants, to do creative research, on his own. . . . The same kind of conservative forces are found in all social institutions which succeed in promoting a successful form of life." These conservative forces serve as a limit on variability in order to ensure the continued viability of a species or society. "The living system is the high value that learning and knowledge must serve" (Burhoe 1961a, 7). Humans in the several subcultures of learning must not "forget that their only viable function is to serve the life of the society of which they are a part, and if their neglect is the source of crumbling of their society or civilization, then they pass away with it" (Burhoe 1961a, 8).

In this context, Burhoe introduced his interpretation of religion. "The function of religion in culture . . . is primarily one of transmitting or communicating the most essential or sacred accumulations of the 'know-how' of life" (Burhoe 1961a, 11). Religions are part of the evolutionary process, and doctrines, cosmologies, and beliefs change and develop within a religion. Natural selection seems to operate on religions as well as species, for anthropological studies "have noted that when a religion becomes non-viable the society that adheres to it becomes non-viable." By analogy, Burhoe emphasized that religions are a central control for a viable pattern of cultural life. "One might say by way of figure of speech that the religions are to human culture what the central nervous system is to an organism and what the critical genes are to the genotype of a species" (Burhoe 1961a, 9).

Human culture was in a precarious position because the applications of greater knowledge on the frontiers of human learning are changing the conditions for a viable human society. Because the traditional institutions have become obsolete in their language and failed to relate to the imagery of contemporary cosmology, they are unable to convincingly communicate their wisdom so that it motivates behavior. Burhoe criticized the liberal tradition for its failure to meet the current crisis. While many liberals assent

to the validity of the contemporary imagery of the cosmos, they eschew doctrine, cosmic theory, or theology as having relevance for the "good life." But we can no more rely on primitive religious conceptions than we can on primitive technologies. "And still less can we rely on the inborn animal instincts for love and goodness, which were wonderfully adequate for their time" (Burhoe 1961a, 10).

Burhoe concludes with a prophecy and a challenge to liberal religion:

> On these grounds I prophesy that to the extent that a religious institution fails to integrate its system of religious beliefs, its theology (its doctrine of theos), with the contemporary doctrines of cosmos, it will wither and pass away; and that a religious institution which successfully formulates a doctrine concerning the central human values of the present era out of the actual pieces of the new cosmology as it is coming from the frontiers of learning, this institution will serve mankind and will prosper with the more successful or viable kinds of men it produces (Burhoe 1961a, 10).

The challenge for liberal religion was to formulate the most sacred doctrines of life for an age of science. Such a formulation would then relate religious problems of life to contemporary cosmology and integrate traditional religious insights into a new theology, expressed in the system of symbols of that cosmology. The new theology needs to be credibly expressed so as to motivate humans to make their pattern of living more viable. "This credibility of doctrine is a gift awaiting the religion that successfully formulates a theology well integrated with the prevailing cosmology. . . . This is the great need of the world and the greatest responsibility and opportunity of liberal religion" (Burhoe 1961a, 13).

Criticism of Burhoe's Paper by the Commission

The discussions at the meeting of the commission focused on certain critical issues in the implications of Burhoe's paper and some disagreements about the role of science in theology and religion (Burhoe 1961b). Two aspects of the discussion are highlighted here, the first of which deals with theological problems in Burhoe's emphasis on the concept of cosmic law and his response to them. Some of the theologians did not see how Burhoe's position could encompass such traditional religious concepts as love, justice, freedom, and a God who cares. Burhoe replied that the law of natural selection implies that God cares about the cosmos and humanity. However, in order to arrive at this implication, that which is essential must be identified with the lasting structures of evolution revealed

by the sciences. "If in our concept of man we identify ourselves with the temporary and transient and in the long-run erroneous phenomena, we are certain to conclude that the cosmos does not care for us" (Burhoe 1961b, 7). He maintained that religious thinkers for millennia had developed concepts of soul and spirit to signify these lasting structures, but that contemporary religions do not recognize the same notion in current scientific developments.

Burhoe was asked in which of two streams of Christian theism he stood: "God cares if (1) you stand in a relation of right belief and know God's name, or (2) you stand morally in terms of obeying his laws?" He replied that doing the will of God or the law comes first, because the law of the cosmos is written into the heart of man, into his genotype. However, with respect to human culture, which extends the cosmic law of life by means of symbolic systems, right belief or knowledge of God is essential.

One scientist objected to Burhoe's putting God into the description of the laws of life, to which he responded "that the conditions the cosmos sets for life, however revealed, is equivalent to God." His thesis, he said, was not contrary to the description of the sciences. "The purpose in using the term 'god' is to connect the languages of religion and science" (Burhoe 1961b, 8). When theologians queried him on the absence of the concept of forgiveness, Burhoe intimated that the notion of forgiveness needed to be thought anew, from an evolutionary perspective, in which the individual body does not have much of enduring value, but its enduring value is dependent on the role the individual plays in the evolving cosmos.

In sum, this discussion pointed to the problem of a caring God in Burhoe's thought. However, Burhoe's response indicates that, for him, the idea that "God cares for me" cannot be separated from God's caring about the whole cosmos, and must be interpreted in that light.

As for the second aspect, Burhoe attempted to persuade the commission, and through it the denomination, of the necessity to formulate doctrine in the light of contemporary science. (Burhoe subsequently developed this concern in a number of articles in denominational publications.) The discussion centered around the issue of whether theological development could be enhanced by the procedures of science, as Burhoe proposed. A number of persons expressed doubt that religious problems could be resolved by a rational or intellectual approach, because religion is primarily concerned with problems of meaning. Burhoe responded that if the intellectual statement of the human predicament does not have

value, there was no point in a Commission on Theology and the Frontiers of Learning. "We ought to make up our minds as a Commission whether we are willing to risk the hypothesis that one can formulate theoretical statements about basic values in life so that the statements will motivate ethical behavior and internal wholeness" (Burhoe 1961b, 3). He said that if the commission could not accept the idea that we can advance to a better life by a theological formulation grounded in the sciences, it had no further business to conduct. "Liberals today boast of adherence to reason, but fail to apply it to problems in religion."

Discussion of Alfred Stiernotte's paper, "On the Idea of Theos," raised the question whether religious experiences, especially of the cosmos, require expression in metaphor or myth, rather than rational discourse, since in religious experience we participate in a tremendous mystery. Burhoe pointed out that scientific theory is a kind of myth and that scientific myths are better than older myths because, with them, we can speak more reliably about things that have the greatest meaning for us, including religious experience. "We [owe] a great debt to traditional religious interpretations of the cosmos, but we do not have an interpretation that works for the modern world. This is an opportunity for liberal religious institutions to develop such an interpretation or theology that works under today's sophistication" (Burhoe 1961b, 5).

On 9 March 1962 Burhoe read a paper, "The Evolution of Science and Religion," at the Public Forum Series in the St. Louis Unitarian Church (Burhoe 1962b). The structure of the paper was similar to that of his "Religion and the Kosmos of 20th-Century Science" (summarized above); however, he did not use the image of learning the cosmic law of life, suggesting that the discussions in the commission meetings had made some impact. The aim of the paper was to illuminate a "vision of the opportunity for the great new religious awakening in the light of science" and to kindle "some small flame of resolution to work for the advancement of this 'spiritual' reformation, this new kingdom of heaven" (Burhoe 1962b, 17). The first part developed the idea of evolution as the acquisition of the knowledge of good and evil. "This will be a scientific account of human genesis," Burhoe said, "and a review of what the sciences tell us about the sources of our knowledge of those religious values that we call good and evil" (Burhoe 1962b, 1). Sacred or religious knowledge is accumulated in and transmitted by two evolving systems of information, or "languages." The first is information encoded in the genetic material—"And the code inscribed in these chemical molecules is more sacred, more faithfully followed, than any of the

religious and moral laws of the past few thousand years" (Burhoe 1962b, 2).

The second system is the information encoded in human languages. With the evolution of the human brain, a new and faster kind of evolution was possible. "The new power of man for advancing and enriching life lies in large measure in his ability to inherit knowledge of good and evil through his culture, primarily through what we call language" (Burhoe 1962b, 4). He introduced the term *idenes* to refer to this culturally evolved and transmitted knowledge—"cultural genes." Scientific development of idenes has greatly increased the rapidity of learning knowledge of good and evil. However, the rapid increase of scientific knowledge has radically altered the culture and threatens disintegration, unless this knowledge is integrated with religion. With this argument, Burhoe arrived at the heart of his message: to spell out "a great opportunity for religion."

> (1) The attainment of religious beliefs and teachings that are as sound and credible as those of the sciences; (2) a consequent deepening religious motivation for moral behavior and the attaining of a sounder basis for religious feelings of purpose, hope, and love from the scientific information underlying human values, goals, and motivation; (3) the development of a religion which can capture the minds and hearts of the whole population, not only of the United States, but of the whole world, because it will be inseparable from the universal appeal and credibility of scientific knowledge generally; (4) the re-establishment of a true integration of religious and secular knowledge, wherein theology will again become the Queen of the Sciences. (Burhoe 1962b, 13).

To grasp this opportunity "will require the participation of large numbers of us to develop institutions to more effective forms by applying scientific knowledge to them" (Burhoe 1962b, 14). He appealed to the hope of a world community, based on scientific knowledge.

Burhoe attempted to persuade Unitarians to seize the great opportunity for religion—a religion integrated with the sciences—and his vision was persuasive enough, and sufficiently held in common among members of the commission, to make its way into the final report.

In an environment that was highly suspicious of, if not hostile to, any form of religious orthodoxy, and at the same time receptive to modern scientific thought, it was only natural that Burhoe emphasized the scientific worldview and the methodology of the sciences as the basis for a religious formulation. Moreover, it provided the basis for developing doctrines that would preserve individual freedom and rationality. Such doctrines would not become

dogmatized but would continually develop in the light of growing knowledge of God's world and all the requirements for life. Such doctrines, furthermore, would hold the promise for a worldwide religious consensus as a basis for a world community. However, because of the pluralistic character of Unitarians and Universalists, Burhoe's ideas have had only a limited appeal among some of them.

Final Report of the Commission

When the commissions on the Free Church in the Changing World finished their work in 1963, the final report of Commission II (Theology and the Frontiers of Learning) addressed the theological problems facing the denomination in two parts. The first part of its report, largely written by Robert Tapp, described the theological diversity within the denomination and the "liberal style" of its members. The second part, largely written by Burhoe, called for theological reconstruction in the light of the present-day frontiers of learning. After the report concluded with specific recommendations, the final draft was edited by Burhoe and, like all committee reports, submitted to the members of the commission for their approval.

In sorting out the unity and diversity within the denomination, the first part of the report acknowledged the historical roots of Unitarianism and Universalism:

> Unitarianism originated as an emphasis upon the unity of God, the humanity of Jesus, and the dignity of man, as well as upon the full use of reason in religion. Universalism was born of the concept of a God of love, and universal salvation as over against a partial atonement or the salvation of a few or the elect. Both bodies . . . are now united in our new Association for a "free and disciplined search for truth as the foundation of our religious fellowship."
>
> It has been our ideal always to be hospitable to dissent, as the path to a new knowledge. As we have striven to maintain the spirit of unity, a creative diversity has woven many strands of thought into the fabric of our faith (Burhoe and Tapp 1963, 24–25).

The report then identified six major theological emphases in the "Liberal Perspective," which is characterized by an openness to theological diversity. These six emphases, it was pointed out, do not exist in pure form but "occasionally are interfused in individuals and usually coexist in our groups": Christian liberalism, Deism, mystical religion, religious humanism, naturalistic theism, and existentialism. Four common experiences, identified as the "Liberal's Style," described the denomination's unity in diversity: this-worldly concerns, ethical responsibility, commitment to democracy, and community/religious bases.

The report went on to state that the commission held that "thought should have primacy over feeling" and that "major human problems ought to be solved in terms of both the perspective and style of religious liberalism and in terms of the best available truths from the frontiers of learning" (Burhoe and Tapp 1963, 30). An included minority report said that some members of the commission held that personal religious experiences should hold primacy over theological interpretation.

The second part of the report was written by Burhoe, and in spite of the fact that the commission reviewed and made changes in it, Burhoe's vision shines through. This section can be viewed as an argument for a new, natural theology to solve the credibility crises stemming from new knowledge and ideas from the frontiers of learning. Its structure closely follows Burhoe's "Religion and the Kosmos of 20th-Century Science" as it reexamines the religious concept of revelation to show "our conviction that the frontiers of learning are relevant to more adequate theological constructions." However, revelation is treated as the source of knowledge, which is defined as "acquired or learned information that orients or guides . . . behavior." A "fresh view" of the "natural history of 'revelation'" is given on the basis of insights from contemporary sciences and scholarship (Burhoe and Tapp 1963, 35).

Biological sources of revelation are pointed out in the genetic code, the learning capacity of the evolved brain and central nervous system, and the capacity for language in the evolved and developed human brain. Religious revelation is interpreted as an imaginative problem-solving experience, induced by frustration and tension. In the human, a new kind of evolution becomes dominant: "Culture is made possible by the powers of the human brain to construct and manipulate images of the world . . . The evolution of the cultural patterns has now become a major process of human evolution."

In the context of human cultural evolution, revelation means "a source of truth incorporated in a cultural tradition" (Burhoe and Tapp 1963, 37). The environment's selection of novel patterns "builds into cultural patterns, such as languages, boats, or religions, a beautiful 'wisdom' and order" of which humans are "still largely ignorant and unconscious" (Burhoe and Tapp 1963, 38). Religions evolved as a cultural agency to transmit "from person to person the central patterns for the ordering of life." As religions evolved, there emerged what we now call theology. Explanations of the major concerns of life were given in terms of a network of environmental powers that determined human destiny, commonly called *gods,* and

"the religions cultivated the proper attitudes and ways of living and dealing with them."

This "natural history" of revelation is completed by a discussion of "two more recent emergents in the evolution of 'revelation' in human culture": reason and modern science. Reason resulted from the discovery that "the wisdom of the logic unconsciously built into . . . language could be used consciously as a tool" for learning. Modern science is not merely a collection of facts. "It is the conceptual structure or theories that constitute the scientific revelation" (Burhoe and Tapp 1963, 39). Science is characterized by its testing of new theories and its openness to sincere and competent critics.

Some believe that there is now a religious crisis because religion is not rooted in modern scientific knowledge and has therefore lost its persuasive power and meaning. The challenge for the liberal churches is this: "Can we generate a dynamic religious belief which fits with and draws its strength rationally from the present frontiers of learning?" The assumption that science cannot deal with values was also challenged: "The whole point of this review of the evolution of 'revelation' has been to make clear that modern science is but the most recent in a long series of instruments for the revelation of knowledge of values for human living" (Burhoe and Tapp 1963, 41). The report then took up two questions concerning problems facing the denomination: "Is theology a good word for liberals?" and "Does science inhibit religious feeling and understanding?" Thus it was argued that a scientifically grounded system of doctrine about the highest human values was needed to give a new meaning and motivation in the present age. "Its power to evoke positive emotions of religious joy is only slightly developed, because we are standing at the very beginning of a period of serious reconsideration of natural theology" (Burhoe and Tapp 1963, 43).

A paragraph that was not in the final report but was stapled into Burhoe's copy is worth quoting for it shows the central relationship between science and religion in his vision.

> When scientifically acquired information becomes relevant for resolving problems of high concern, of how man may best relate himself to whatever is most significant for sustaining his being, then the results should yield the experience of religious salvation just as the results of scientific notions may yield the experience of salvation from toothache. . . . [3]

Two claims must be stressed. First, the application of scientific information to religious problems can result in better, if not richer, religious experiences. Second, humans, with the use of scientific

concepts, can become more conscious, intentional, and hence more effective in dealing with problems resulting in pain and anguish. That is to say, humans may become more effective, because better informed, in their healing of individuals or achieving social justice—healing the pain and anguish produced by injurious social policies.

The report concluded with "factors favoring a new theology":

> In the first place, the use of scientific notions in theology is in keeping with our liberal traditions of rationality, of open-mindedness, of freedom of belief and conscience. Because of its tradition, the UUA should lead in developing religious potentials of the sciences.
>
> In the second place, the crisis of the 20th century offers an opportunity for growth and for service in this area, unparalleled for new break-throughs in the evolution of religion and human culture. This crisis is a resource for the growth and usefulness of a religious association.
>
> In the third place, the scientific approach to religious doctrine offers a new potentiality for achieving consensus in religious thinking. . . . The traditional liberal tolerance and respect for differing beliefs will be guaranteed by a scientific approach to theology. . . . Religious unity without coercion, without dogmatism, should be the natural by-product of a scientific approach to theology. (Burhoe and Tapp 1963, 44–45).

Five recommendations followed: "(1) Preserve denominational breadth. (2) Intensify our dialogue with ecumenical Christianity. (3) Intensify the dialogue among the historic religions. (4) Develop an institute for advanced study of theology in relation to the frontiers of learning. (5) Enrich the frontier-content of denominational curricula." The most significant of these recommendations, at least for the purposes of this study, was (4), development of an institute for advanced study. Combined with other factors, this recommendation led to establishment of such an institute at Meadville Theological School in Chicago, with Burhoe as its director.

The point of this discussion of Burhoe's involvement with the Commission on Theology and the Frontiers of Learning has been to show (1) that Burhoe had a bold vision for the renewal of liberal religion wherever it existed; (2) that this vision informed the denomination through the work of the commission; and (3) that the theological climate of the denomination formed the context in which Burhoe continued to develop his vision. Burhoe was sought out because he offered entrée to scientists concerned with human values and religious issues, as well as for his visionary leadership in the development of the Institute on Religion in an Age of Science. He was recognized as a person with a religious and theological vision of value to the denomination—that approaching religion in a manner similar to that of the sciences could produce a consensus on doctrines

for human life with such universal validity as to be the basis for a worldwide religious consensus.

Burhoe and the New Design at Meadville

Various factors and events, not the least of which was the recommendation of the Commission on Theology and the Frontiers of Learning, resulted in a theology and science component in the program of Meadville Theological School. Upon dissolution of the group known as the Federated Theological Faculty at the University of Chicago Divinity School in 1960, Malcolm Sutherland was called to succeed Sidney Mead as president. Thus the new situation presented the challenge to design a new curriculum for Unitarian Universalist theological education to replace the curriculum under the Federated faculty. Convinced of the positive relation of the sciences to theology by his background in psychiatric social work, Sutherland had become acquainted with the work of IRAS in the summer of 1959, when he was vice president of the AUA, and President Dana Greeley suggested that Sutherland accompany him to the 1959 IRAS Star Island summer conference for a one-day meeting on denominational matters. Sutherland was impressed with the work of IRAS, and the summer of 1960 marked the beginning of his long association with the Institute. (He served as vice president from 1963 to 1967, as president from 1967 to 1968, and on 31 July 1980 he was elected an honorary vice president.) When Sutherland assumed the duties of president at Meadville, he looked for ways of enticing Burhoe to Meadville to lead in the development of a program for integrating theology and the sciences into the education of Unitarian Universalist ministers (Sutherland 1986). He first sought Burhoe's assistance in starting a regular colloquy on religion and science, for which Burhoe gave the opening set of seminars.

In a study of the five Unitarian and Universalist theological schools in 1962, Harold Taylor recognized the Meadville colloquies on religion and science as one effort to meet the need for liberal ministerial students to explore the issues and implications of the sciences for religious and philosophical speculation. He noted, however, that the need would not be properly met until science became a regular part of the curriculum (Unitarian Universalist Association 1963, 63). What became known as "The Taylor Report" was the outcome of a study of theological education commissioned in 1959 by the American Unitarian Association, largely in response to the need of financial support for the theological schools at the time of denominational consolidation (Greeley 1971b, 143–46).[4]

From the perspective of this study, one important criticism pervades the report: Unitarian Universalist education was too dependent on traditional Protestant theological models and thus not in keeping with the spirit of liberalism. The curricular pattern of required courses, centered in the traditional Protestant theological disciplines, needed to be reoriented to the understanding and task of ministry in the liberal tradition, yet expanded to include an understanding and appreciation of other religions, the intellectual geography of contemporary culture, the creative and performing arts, and the contemporary sciences.

One year later, in May of 1963, the six study commissions on the Free Church in a Changing World issued their final reports. Although the work of the Commission on Theology and the Frontiers of Learning did not have a great impact, it stimulated development of a research center as part of a new design for theological education at Meadville.[5]

The New Design of Theological Education was announced in the spring of 1964, as follows:

> Meadville's revised curriculum seeks to bring theological inquiry into a disciplined and demanding engagement—first, with contemporary knowledge about the nature of man and his environment and second, with contemporary life as it is in its being lived.
>
> There is a tremendous body of radically new knowledge about man and the source of his being that has not yet been seriously related to man's religious quest and his search for supreme values. In this new knowledge is much to illuminate and substantiate some of the basic insights of ancient religious traditions and at the same time there is much that would reform and provide radically advanced insights needed for the new levels of human life possible in a civilization transformed by science and technology (Meadville Theological School 1964, 5).

In addition to the traditional focus on the religious traditions of Western culture, two departments formed the substance of the New Design: the departments of (1) Theology and the Frontiers of Learning and (2) Theology and the Church in Society. The former was established "for the purpose of relating theology or religious theory to the insights, conceptions and models of reality of contemporary knowledge at its most advanced levels" (Meadville Theological School 1964, 7). In connection with this department, a Center for Advanced Theological Studies was also announced; it was to conduct a program of research and study, guide advanced-degree scholars, engage in a publication program, and conduct programs of continuing education.

Burhoe's Contribution to New Design

Burhoe was instrumental in shaping the theology and science component of the New Design because, in the fall of 1963, Sutherland had asked him to draft a prospectus for a center for religion and science at Meadville. Burhoe relates this request in his own words:

> Whatever may be the mood and need of a secular generation which cannot believe in the traditional representations of God who established the duties and guaranteed the spiritual values of men, one straw in the wind, showing incipient interest on the part of the religious and theological community in the relatively quiet recent growth of interest among scientists in problems of sacred human values, blew into my face in the fall of 1963. Sitting in my office in the House of the American Academy of Arts and Sciences in Boston, I received a phone call from Malcolm Sutherland, President of the Meadville Theological School, affiliated with the University of Chicago. He had been contemplating his experiences at some of the summer conferences of the Institute on Religion in an Age of Science in which I had played a part. There we had for a decade been bringing some [of] the nation's greatest scientists to speak about what they thought their science had to say about religion and human values. Sutherland had been impressed with our notion that the sciences might be revelatory for man's religious concerns, and asked if I would help him find a scientist to head up a new department at Meadville to try to relate the new knowledge about man and the source of his being to man's religious quest (Burhoe 1966, 1).

Burhoe's response was a twenty-page draft on 21 October, titled "Center for the Integration of Religion and Science. Meadville Theological School. A Prospectus" (Burhoe 1963b, 12b). In an accompanying letter, Burhoe recommended Julian Huxley, then seventy-six years old and about to retire from his position with UNESCO, as "the best man in the world . . . competent to deal with this field" (Burhoe 1963a).

The rationale for the center was, in essence, a statement of Burhoe's vision of a program for the integration of religion and science. The argument for the need of a program to integrate religion and science was first clearly stated in "Salvation in the 20th Century" (discussed in chapter 2 of this biography). It was further developed in Burhoe's work on the Commission on Theology and the Frontiers of Learning. In the prospectus, this argument was developed to become the rationale for the center at Meadville.

The Center for the Integration of Religion and Science was to be "set up after the fashion of contemporary research and development centers" to implement "a program to revise theological doctrine in a scientific fashion," using the "full application of contemporary scientific methods and theories to ascertaining truth concerning religious problems" (Burhoe 1963b, 6–8). The scientific approach

would assure convergence and coherence of doctrine, thereby resulting in commitment to an evolving "free consensus" on doctrine that had been verified in fact or experience. "Some of our exploration suggests that a scientific evolutionary perspective will facilitate our seeing hitherto unrecognized or unanalyzed wisdom in all religions," Burhoe had written in the prospectus. The theologian and religious scholar would have an important role to play: "It is only with the religious scholar's and theologian's understanding of the religious arts that new inventions from the sciences can be adapted and instituted effectively to improve the religion of the future." The rationale concluded with the following statement:

> We are convinced by an already existing but limited investigation of religion in the light of the sciences that religion is essential for a viable society, that great wisdom inheres in its traditions even when they have not been translated into a modern idiom. We are further convinced that new translations, revisions, and additions can yield an ever-widening consensus on theological doctrines which are as true, and effective for their purposes, as those in the medical and other professions which have already integrated their arts and doctrines with those of the sciences. (Burhoe 1963b, 9)

Two important personnel needs were identified. Because the policy would be "to relate religious theory honestly and seriously to the mainstream of contemporary science," advisory board members and consultants would be selected "from among the very highest leaders" in the sciences and philosophy.

The curriculum and research of the center "will always be oriented to religious and theological questions, the sciences being involved only to the extent that they may shed useful light for the understanding of these problems." Burhoe identified five areas of research (revelation, man, God, salvation, and church) and criteria for the application of scientific knowledge.

> Many different areas of science have changed our illumination of parts of these questions. . . . But a sheer increase in knowledge does not mean it is immediately applicable. . . . In each profession the knowledge has to be selected and further tailored to fit its own special problems. . . . In theology the doctrines must be formulated in such a way as to be effective in the ministrations of the churches suitably to orient men's motivations and emotions to personal and social (or moral) well-being and good behavior. . . . Certain avenues of pragmatic or empirical tests will be constantly applied to the teaching as well as the related research, such as tests of the depth of conviction and the consensus which the hypotheses develop in those involved, as well as of the degree to which the hypotheses can be justified in the relevant existing scientific body of doctrine. (Burhoe 1963b, 13–14)

The program of the center would develop a curriculum of courses, periodic seminars and colloquiums, research projects, a bibliography

and library, special conferences and study groups, testing of practical applications in the churches, and a journal for international communication in the integration of religion and science. The prospectus ended with a sketch of five courses in each of the identified research areas, to which Burhoe prefaced the remark, "These may be called a religious exegesis of the scriptures of the contemporary sciences."

Burhoe Is Offered, and Accepts, the Leadership of the Theology and Science Program at Meadville

Sutherland and some of the Meadville/Lombard board saw the potential of such a program for revitalizing liberal religion, so Burhoe was invited to give a series of lectures (in January 1964) as part of the Religion and Science Colloquy series. This was also to be the occasion for exploring the possibility of his joining the Meadville/Lombard faculty to direct the new program in theology and science.

In three lectures on the metaphysics of physics, Burhoe sought to show what revelations physics may have "for building a rational theology that could provide a validity of authority and power for the clergyman that equivalent applications of the sciences provide for other professions, such as medicine" (Burhoe 1964a, B30a). These lectures presented the way in which Burhoe intended to continue developing his theological position.

Sutherland, who finally persuaded Burhoe to take the leadership of the theology and science program at Meadville, described the occasion:

> I remember the wonderful combination of enthusiasm and caution with which he responded to my inquiry and invitation. I realized that as the Executive Officer of the American Academy, he was settled for life if he wished to be and I wonder now at my own audacity to ask him to leave that for so insecure an experiment, uproot himself from his beloved New England and come to Hyde Park. As I developed my invitation I could see him internally beginning to fashion concrete possibilities, but outwardly he was cautious. (Sutherland 1987, 21)

The offer to direct the development of the Meadville program put Burhoe in a difficult situation. However, he was committed to the project, to which he had already given substantial work and direction. In a letter to Sutherland he wrote:

> In my opinion, the proposed Meadville expedition is the first realistic one for conveying a group from the shores of the Judeo-Christian tradition to the new world of theological illumination and religious conviction by the light of the sciences. . . . I associate myself wholeheartedly with the mechanism for dealing

with this harvesting of new crops of knowledge for theology and religion which you have outlined . . . in your Proposals for Curriculum Revision. . . . I have to confess that I am somewhat torn up inside by conflicting opportunities and loyalties. . . . I await word from you with much interest on what you and your board finally propose. Then I may have some difficult confrontations and decisions. (Burhoe 1964b)

Within a few weeks he was offered the position of professor and director. Besides his regular duties, then guiding the theology and science component of the New Design, Burhoe faced the difficult decision to leave his "beloved New England" for the Hyde Park neighbourhood of Chicago. It meant giving up his lifelong attachments in the Boston area, uprooting his family, and resigning his position with the American Academy of Arts and Sciences. The Academy, a hub of mental and cultural activity, provided with Burhoe a broad and deep acquaintance with all the men and women working on intellectual frontiers. This rich interdisciplinary milieu was the context in which Burhoe had developed his vision for the integration of religion and science. Now he faced separation from those who shared his concern for formulating human values adequate to meet the challenges of the cultural crisis, especially those in the Academy Committee on Science and Values, many of whom had formed the nucleus of IRAS. Many of these friends saw no reason to bother with religious institutions and urged him to stay with the Academy (Burhoe 1967, 17–18). What then motivated him to leave Boston and his secure and rewarding position with the Academy?

An answer to the question, in Burhoe's own words, is found in his "Review and Farewell" to the American Academy of Arts and Sciences of 13 May 1964:

I explained my resignation to the Council nearly three months ago, but I think I owe an explanation to all of you. At Meadville Theological School I have been invited to continue the exploration of the basic postulate of my formative years which is also a postulate which has played a role in this Academy's renaissance—an integration of science and human values. In a sense, for the past seventeen years you have been preparing me for this task. But, at Chicago I expect to be freed of administrative duties and to find more time to gather the threads I have been spinning with my left hand for three or four decades and to weave them into a more ordered pattern of teaching and writing. Many of you have urged me to write this book, and now I am taking you seriously. I could not take it seriously and continue to render the service you need in an administrative office here.

I can state the main theme of my future work in the words of the 1946 report of the Commission on the Present Status and Future of the Academy: ". . . the spirit, purpose, and essential logical and instrumental methodology of science can be applied more or less readily and successfully to any and every form and aspect of human knowledge." I would emphasize that this includes

our knowledge of basic human values, values which traditionally have been called ethical and religious.

Two thoughts console me as I leave this bright port of warm friends. One is that I am sailing with the same model of the world and the same compass and charts of the heavens with which you have provided me, and I go in search of one of the same treasures you have been seeking. The second is that a number of you with whom for years I have been dreaming of reaching this shore of better moral and spiritual insights and motivations by means of scientific understanding will in some degree continue to sail with me. I trust that we are not really separating even though some of my routines will be changed. (Burhoe 1964c, 11–12)

The opportunity to work full-time in developing his postulate that an integration of science and religion is essential for human welfare overshadowed other considerations.

Burhoe's work with the Academy had provided an intimate acquaintance with persons working on the frontiers of research, and discussion with these persons had provided the resources with which he had articulated his program for reforming religion. Although a number of members were concerned to apply scientific methodology to the study of basic human values, the focus of the Academy was not on Burhoe's religious and theological concerns. These he had developed in his spare time, apart from—but sometimes through—his work in IRAS and with the Commission on Theology and the Frontiers of Learning. His intention to devote himself to theology, which he had given up in the 1930s under economic pressure, could now be realized in the position offered by Meadville. In addition, it seemed as if the unrealized expansion of the IRAS program could be achieved at Meadville—namely, an integral component in theological education, a publication program, and a research center.

The work of the Institute [IRAS] led . . . to my accepting the invitation of President Malcolm R. Sutherland and the Trustees of Meadville/Lombard Theological School affiliated with the University of Chicago, to head what may have been the first theological-school-sponsored department ever commissioned to research, develop, and teach theology using the modern sciences as a prime resource. (Burhoe 1981, 16)

NOTES

1. The "Suggested Agenda" in a "Prospectus for Commissions," approved on September 21, 1960, noted: "as far as it is possible, the costs of these Commissions may be taken from the item in the Development Fund package for Religion and Science and the Frontiers of Learning, and the Commissions themselves will thus serve as a substitute for that proposed department."

2. For the Stoics, Logos was the principle of all rationality in the universe, and as such it was identified with God and with the source of all activity . . . In man it was the power of reason in his soul, 'resident' in him and also, when spoken, it became 'uttered' reason. For the Stoics the principle of morality was 'living in accordance with

nature,' and as the nature of man was to be rational and indeed nature as a whole was the rational product of Logos, living according to nature could be equated with living according to Logos. Logos was thus the source of law and morality." (*Encyclopedia of Philosophy* 1967).

3. Typewritten note stapled into Burhoe's personal copy of *The Free Church in a Changing World*. It appears to be an alternative formulation of the last paragraph on page 43 of *The Free Church*.

4. The committee commissioned Harold Taylor, retired president of Sarah Lawrence College and philosopher of education, to conduct an independent, in-depth study of the five schools where the majority of Unitarian Universalist ministers were trained: the Theological School of St. Lawrence University, the Harvard Divinity School, the Meadville Theological School, Starr King School for the Ministry, and Crane School of Religion at Tufts University. Because Taylor's study comprised the bulk of the final report (pp. 23–133), it came to be known as "The Taylor Report." This study came on the heels of the Survey of Theological Education in the United States and Canada, sponsored by the American Association of Theological Schools and undertaken in 1954.

5. Dana Greeley, in a paper on the occasion of Meadville/Lombard Theological School's 125th anniversary, reflected on the work of the six commissions: "I was extremely pleased with their findings, but those findings never adequately caught the attention of local churches and the denomination. We neither gave the findings a proper forum nor assimilated what they had to say to us" (Greeley 1971a, 23). Issues of social justice seem to have overshadowed consideration of the reports of the six commissions at the Chicago General Assembly in May 1963. (See Greeley 1971b, 105–6.) Greeley also notes the direct connection between IRAS, Commission II, and Meadville: "From the latter [IRAS] were born both a denominational commission of the Unitarian Universalist Association and finally a department of the Meadville Theological School of Chicago" (Greeley 1971b, 200).

REFERENCES

Burhoe, Ralph Wendell. 1957. "On the Nature of Truth." Proposal for the 1957 Conference on Religion in an Age of Science. January. Burhoe papers. Chicago. Mimeo.

———. 1961a. "Religion and the Kosmos of 20th-Century Science." Paper presented at the meeting of the Commission on Theology and the Frontiers of Learning of the Unitarian Universalist Churches, 25–26 September. Burhoe papers. Chicago. Mimeo. This paper quotes from an unpublished manuscript by Anthony F.C. Wallace, "Religious Revitalization: A Function of Religion in Human History and Evolution." This quotation also appears in Wallace, Anthony F.C., *Religion: An Anthropological View*. (New York: Random House, 1966), pp. 38–39.

———. 1961b. "Third General Meeting, 25–26 September 1961. Summary for the Record, by Secretary Burhoe." Burhoe papers. Chicago. Mimeo.

———. 1962a. "Some Thoughts on the Future of Liberal Religion." *Crane Review* 5 (Fall): 12–23.

———. 1962b. "The Evolution of Science and Religion." Paper presented in the Public Forum Series at the St. Louis Unitarian Church, 9 March. Burhoe papers. Chicago. Typescript.

———. 1963a. Letter to Malcolm Sutherland. 21 October. Burhoe papers. Chicago.

———. 1963b. "Center for the Integration of Religion and Science, Meadville Theological School: A Prospectus. " 21 October. Burhoe papers. Chicago.

———. 1964a. "The Lord of Mankind" in two parts: "Source and Sustainer of Man" and "Image of God or Soul." Burhoe papers. Chicago.

———. 1964b. Letter to Malcolm Sutherland. 18 January. Burhoe papers, Chicago.

———. 1964c. "A Review and Farewell." Communication presented to the Academy of Arts and Sciences at its 184th Annual Meeting, 13 May.

——— 1966. "The Campus and the Creator." *Faculty Forum* 37 (May): 1–2.

———. 1967. "Science and World Religious Consensus." Paper for the Meadville Colloquy, 20 April. Burhoe papers. Chicago.
———. 1970. "Commentary on J. Bronowski's New Concepts in the Evolution of Complexity." *Zygon* 5 (June): 98–101.
———. 1972. "Natural Selection and God." *Zygon* 7 (March): 20–63. Also appears as chapter 4 in Burhoe 1981.
———. 1981. *Toward a Scientific Theology*. Dublin: Christian Journals.
Burhoe, Ralph Wendell, and Robert Tapp. 1963. "Theology and the Frontiers of Learning." In *The Free Church in a Changing World,* ed. Ralph Wendell Burhoe and Robert Tapp, chapter 2. Boston: Unitarian Universalist Association.
Encyclopedia of Philosophy. 1967. S.v. "Logos," by G. B. Kerferd.
Greeley, Dana McLean. 1971a. "The Unitarian Universalist Theological Situation." Library, Meadville/Lombard Theological School, Chicago. Mimeo.
———. 1971b. *25 Beacon Street and Other Recollections*. Boston: Beacon.
Meadville Theological School. 1964. *Announcement of the New Design of Theological Education at Meadville Theological School of Lombard College*. Chicago: Meadville Theological School.
Sutherland, Malcolm. 1986. Interview with author. Chicago, 11 January.
———. 1987. "Reflections on the First Twenty Years of CASIRAS: A Personal Review." *Zygon* 22 (Anniversary Issue): 20–27.
Unitarian Universalist Association. 1961. "Preliminary Reports of the Commissions of the Free Church in a Changing World." Paper presented to delegates of the Organizing Meeting of the Unitarian Universalist Association, Boston, 11–13 May. Burhoe papers. Chicago.
———. 1962. *A Comprehensive Plan of Education for the Unitarian Universalist Ministry: Complete Report of the Committee to Study Theological Education*. Boston: Unitarian Universalist Association.
———. 1963. *The Free Church in a Changing World*. Boston: Unitarian Universalist Association.