

## THE OPEN-ENDED LEGACY OF RALPH WENDELL BURHOE

by Karl E. Peters

*Abstract.* Through cultivating my thinking, along with that of many others, Ralph Burhoe taught me to understand myself in relational terms. He helped me to appreciate religious traditions on scientific grounds and to see how religion adapts to changing conditions even as it continues to provide meaning and guidance to the wider culture. He restored my belief in an ever-present sovereign God when God is understood in terms of function and system.

*Keywords:* Ralph Wendell Burhoe; evolution; God; religious tradition; scientific theology; soul; system.

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“Ralph Burhoe, he’s a good man.” These were the first words I ever heard about Burhoe. It was 1966. I was in conversation with Joseph Blau, professor of Judaism and of American philosophy and religion at Columbia University. In response to my interest in religion and science, Blau suggested I read Ian Barbour’s new book *Issues in Religion and Science* (1966) and the new journal *Zygon*, edited by Burhoe. That’s when I began my own journey exploring how one might think religiously in the context of science.

I didn’t learn firsthand how good a person Burhoe was until the spring of 1972. I had written a paper for a graduate school seminar in religion and science directed by Blau. With his encouragement I sent the paper to *Zygon*. One day I received a phone call from Burhoe. He was coming to New York City for some meetings and said he would like us to get together for dinner so we could discuss my paper. I met him at Newark Airport. My wife Carol and I had him over for dinner, and then he talked with me about my paper for two hours in my own living room. After that conversation, I realized the paper would never be published.

However, I also thought, “I want to work with this man.” Anyone who gives such careful attention to my thinking, I wanted to work with. That

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summer I attended my first Star Island Conference of the Institute on Religion in an Age of Science (IRAS). I became involved with the journal *Zygon*, and eventually I succeeded Ralph as editor. I discovered for myself that Blau was right: Ralph Burhoe was a fine human being.

One reason I thought this was that Burhoe continually encouraged the thinking of many individuals and helped them to express their ideas in the pages of *Zygon*. When he received the Templeton Prize for Progress in Religion, one of the reasons given for the award was that he had helped to create and shape significant organizations and media that allowed others to work in the field. He was instrumental in forming and developing the Committee on Science and Values of the American Academy of Arts and Sciences, *Daedalus*, IRAS, the Center for Advanced Study in Science and Theology at Meadville/Lombard Theological School, the Center for Advanced Study in Religion and Science, the Society for the Scientific Study of Religion, the *Journal for the Scientific Study of Religion*, and the Chicago Center for Religion and Science. What this list misses, however, is how Ralph Burhoe did all this. With a lot of hard work and with great attention to detail, he cultivated and coordinated the thinking of others. He did it individual by individual, letter by letter, phone call by phone call. In this way he nourished his own thinking, published in many of his essays, and also the thinking of others. How he worked with individuals in organizations is as much a part of his legacy as any of the intellectual products of that work.

When I examine the substance of my own thinking, I see Ralph's contribution in four areas. I think others have been similarly influenced. First, he taught me to understand myself in relational terms. Second, he helped me to appreciate religious traditions on scientific grounds when I had all but given up on traditional religion. Third, he helped me to see how religion adapts to changing conditions even as it carries out its primary function of providing meaning and moral guidance for the wider culture. Fourth, he restored my faith in an ever-present sovereign God when God is understood in terms of function and system.

Many of the writings of Ralph Burhoe develop the theory that human beings are the products of both biology and culture. We are creatures of biocultural evolution. We are all shaped by our genes, our cultures, and the transcultural habitat or wider natural environment. Burhoe saw these as analogous to patterns of flow, living streams. They come together to shape the core of each human being, but they also transcend our bodies in our particular times and places. Together in unique configurations they constitute each of our bio-socio-ecological souls. "The real core of human nature is not any particular body but an enduring pattern of flow. The flow pattern is generated by the interaction of the energy and boundary conditions set by habitat (or cosmotype), genotype, and culturetype,

resulting in unending successions of ever-evolving levels of living forms” (Burhoe 1981, 140). Although as far as I know, Burhoe never made the connection, his relational view of human beings echoes the Buddhist concept of *annata*, “no substantial self.” The self is constituted as a pattern, a relational system, but there is no substance called *self* or *soul* beyond the system of relationships.

When I began to unpack Burhoe’s relational self I found it useful in two ways. The first was in understanding how I came to be. I could use his framework to understand how I was a unique synthesis of three heritages—cosmic, genetic, and cultural or social. I could see myself as made of star stuff, and I could imagine how the laws of nature uncovered by physics and chemistry operated in me. I could see myself as the result of a long heritage of life, going back through my parents and immediate ancestors into the human species, to other species, and to the origin of life on earth. I could see myself as the fruition in one unique way of American democracy, of Judeo-Christian thinking and ways of living, and of Greek, Roman, and, to some extent, Germanic ideas and values. All this gives me a feeling of being at home in the universe, even as a unique individual.

Second, I also could see myself as having an ecological-biological-social immortality. This immortality does not wait upon my death. It is based on all the influences I have on others—humans, animals, plants, and the planet as a whole. This gave me a strong sense of responsibility. The question for me became not, Will I continue after death? but How will I continue after death? In keeping with the meliorism of William James, I knew that within my spheres of influence I was responsible for any good or harm to others and the world. Such thinking became an important ingredient of both my human and my environmental ethical understanding.

One issue that remains for me to reflect on is what Burhoe meant by his statement that the human soul is an “enduring pattern.” What exactly is the pattern that endures? Do the cosmic, biological, and cultural streams come together to form each individual, only to disperse into the world again as we influence others? Is our continuation then a dissemination into the wider universe? Or does the particular way these streams come together, the unique pattern itself, endure? Burhoe sometimes referred to these flows as information. Will there be an informational system created out of cosmic, biological, and cultural information, an informational system called Karl E. Peters, that itself is stable and will endure? My self is not a substance, but is it an enduring pattern of information? Here religious hope and scientific evidence pull me in two directions. One pulls me toward individual fulfillment, the other toward return in many separate ways into the wider world. When I asked Burhoe what he thought about this, he did not give me any definite answer. His thinking

had facilitated mine, but he left it to me to continue on my own to answer the question of what it meant for me to be “immortal.”

One reason why Burhoe developed a relational view of the self was to propose an answer to a central problem of sociobiology, “the paradox of human altruism” (Burhoe 1981, 204). If the survival of one’s genetic heritage through natural selection is the meaning of individual reproductive success (the theory of “selfish genes”), then how can a creature arise who is capable of acting for the good of those beyond the creature’s immediate family—of aiding those who will not transmit the creature’s own genes? Burhoe’s proposed solution is that with the development of human language, another heritage coevolved with the genetic heritage. This *cultural* heritage has its own mechanisms for being transmitted to future generations. We are shaped not only by our genes; we are also shaped by transgenetic values transmitted through language and example to act for the good of others. In other words, we come to regard citizens of our societies (whether city-states, nations, or even multinational civilizations) as members of our extended families.

Why, then, am I a moral creature? Why am I concerned for the good, not just of myself and my immediate family, but of humans and even nonhumans? I have no strong genetic kinship with these. How I act toward them has little direct bearing on the transmission of my genes to future generations. However, if I am enculturated to act for the good of nonkin members of my society and they are also so enculturated, we all benefit. We increase our chances of individual genetic survival, and we also increase the chances for the continuation of our society.

There are many issues to be worked out in Burhoe’s dual inheritance model of human nature. Most involve the precise relationship between genetic and cultural inputs, and how they both may dispose us toward immoral as well as moral behavior. Burhoe and others, such as Donald Campbell, may have oversimplified the relationship between biology and culture. They have tended to see a conflict between the two in which morals from culture have to control biological selfishness. The picture may be more balanced than that. I suspect that further scientific studies will show how both genes and culture contribute to what a particular society may call moral and immoral behavior. To see this, we will need more scientific study of how these two heritages come together in the everyday functioning of the human brain. New work detailing the integrated functioning of different parts of the brain, especially by scientists who show how feelings and reasoning are interrelated, is beginning to flesh out how we can be both moral and immoral (e.g., Damasio 1994). This work will take us well beyond that of Burhoe and Campbell. But Burhoe’s thinking still provides a useful framework for thinking of ourselves in relational terms as biosocial creatures.

For Ralph Burhoe the aspect of society that makes us moral creatures is religion. When I first came in contact with Ralph's thinking, I had rebelled against traditional religion. Having done my doctoral dissertation on Henry Nelson Wieman's view of God as the creative process, I was returning from atheism to an empirical, naturalistic theism. But I was skeptical of traditional religion. Burhoe offered me a scientific basis for appreciating traditional religions, even if one did not believe all the ideas of traditional theology.

His scientific approach to understanding the function of religion in human society is related to thinking in the social sciences. It is one of the reasons why he was instrumental in developing the Society for the Scientific Study of Religion. It also is the reason why some of Burhoe's thinking is related to that of anthropologists.

His work on the function of religion helped me to appreciate better the practice of religion through its moral codes and ritual behavior, and how these play a role in shaping human motivations for doing good. For Burhoe religion was high culture—that which showed what human beings could become, how they could evolve beyond their primate-rooted kin altruism into larger-scale societies, each with its own common good.

One problem Burhoe struggled with was how human beings might move toward a truly global civilization. How could humans from around the world find enough common ground so that their cultural diversity would not contribute to religiously sanctioned warfare between in-groups and out-groups but would instead enrich a shared humanity? While religion serves to unite peoples in cooperative living, it also contributes to divisiveness and destruction. For Burhoe the hope that religious diversity could be creative and constructive lay not with religion but with science. He saw science, its methods and its findings, as providing the common ground for a global culture. As each different tradition came to terms with science in its own way, reforming itself to express its wisdom in terms compatible with scientific understanding, Burhoe hoped for more cooperation across cultures even as each culture preserved its own integrity.

I remember conversations with Ralph about this at a time when I was still antagonistic to my own religious past. His response was a pragmatic one. The particular expressions of religious wisdom—its particular beliefs and practices—were not the important things. It was not even necessary that the beliefs and practices be compatible with science. As long as those beliefs and practices guided people to meaning and moral living and were open to alternative expressions of religious wisdom doing the same thing, Burhoe seemed content. In short, he was not interested in converting traditionalists to particular scientific understandings—as long as their traditions fulfilled what he saw to be

the function of religion scientifically understood and did not interfere with other religious traditions doing the same.

This stance toward the function of religion in human society was supported by his close colleague psychologist Donald Campbell. With Campbell, Burhoe argued that long-standing traditional religions had been selected from among many alternatives because they helped humans to continue and flourish in larger communities, able to deal more effectively over time with the conditions of natural existence. In other words, Burhoe employed a model of Darwinian selection to offer an explanation for the significance of long-established religious traditions. They survived because, as Campbell put it, they contained "well-winnowed" wisdom for life (Campbell 1975).

However, even though Burhoe taught me to respect religious traditions, even though he was not interested in converting to a scientific theology those who still found those traditions meaningful, he did think that the rise of modern science itself exerted a cultural selection pressure on traditional religion. He thought that as more and more people became enculturated with a scientific view of the world, they would have difficulty with the intellectual credibility of their own inherited faiths. That certainly happened to me. I was a primary example of what Burhoe was talking about. I was a product of C. P. Snow's two cultures. One was a form of Christianity that expressed itself in traditional language. The other was empirical and scientific. In a "Spiritual Autobiography" I wrote for an adult education class in church, I put it this way:

I grew up in a liberal Christian home, was a youth leader in my local Presbyterian church, had a religious experience that called me to the Christian ministry, was a fundamentalistic, evangelical Christian in college, was first in my class at McCormick Theological Seminary, studied ecumenical theology at the University of Tübingen, Germany, and enrolled in the Ph.D. program at Columbia University and Union Theological Seminary in New York City. By 1967 I was an atheist.

My problem at that time was this. I was the son of an engineer. I had been educated in the public school system of Wisconsin; my philosophy professor turned out to be an empiricist (although I did not know it at the time). As I was soon to discover, I was a pragmatist, a practical thinker for whom seeing is believing.

Burhoe's thinking was exactly for people like me. He not only helped me to appreciate my own religious background; he offered me a way to formulate a theology that was in accord with scientific theories, scientific methods, and a scientific view of the world. That theology was a naturalistic, evolutionary theology.

I think that in one way Ralph Burhoe's thinking is truly unique. He combines a biosocial scientific analysis of the function of religion and the history of religions with a scientific theology. This places his thinking within the arenas of both religious studies and theology. Moreover, his

theology or doctrine of God accounts for the diversity of religious traditions, revealed in the historical study of religion. For Burhoe, religion is not a product of human beings, even of human beings interacting in societies. Religion in all its diversity is the result of the work of God.

When I first encountered his thinking, I was impressed by his emphasis on the sovereignty of God. This resonated with my own theological training in the Presbyterian, Calvinist tradition. But there was a difference. Rather than thinking of God, or “the Lord of History,” as a personal being, he thought of God as a system of interactions occurring within the world. This system was sovereign in a functional sense. It was sovereign in an immanent manner. It was not a distant God overlooking the entire world but an ever-present God winnowing the wheat from the chaff in the ongoing processes of evolving life, humanity, and human society. It was, as he expressed it in his earlier writings, the processes of “natural selection.”

As I reflected over the years on Burhoe’s understanding of God, I came to wonder how he distinguished God from nature. When I suggested that he was a pantheist, he did not accept that as a description of his theological position. When I developed my own expression of what I thought he meant by God, arguing that God was the set of decoupled processes of random variation and selective retention (Donald Campbell’s phrasing) that gave rise to life and human thought, Burhoe pointed out that I could not so easily separate process from product. The results of natural selection in turn became a part of further natural selection on new variations. Burhoe was asking me, in a scientific, functional, process theology, How does one distinguish God’s immanent, continual creative activity from the ever-changing world God is creating?

I developed a possible solution to this problem that, regrettably, I never had the opportunity to discuss with Ralph. It draws on the insights of American pragmatism by suggesting that it is possible to view the same thing from different perspectives—with different consequences for action (Peters 1994). Thus, the difference between world and God can be conceived in terms of how humanity relates to—acts on and experiences—this same thing. If, for example, one considers a local ecosystem as a part of the world, of what has been created, one might see instrumental value in it for human well-being and try to cultivate and harvest that value. Or one might see the intrinsic value of some of its sentient and living forms and try to preserve them and their habitat. One might even appreciate the ecosystem’s beauty. All these perspectives show respect for the ecosystem as it is, but they tend to view it in a static manner. However, a quite new dimension of value is added if one considers a local ecosystem an instance of divine immanence continually creating the world through its system of interactions as they give rise to and select new variations of life. Then, in

addition to using, appreciating, and preserving what is there, one would seek the possibilities for new forms of life, new patterns of living. Becoming would be valued as much as being. This illustration suggests how we respond to the same thing differently depending on whether we view it as world or as God.

Another way of distinguishing God from the world is to develop a notion of divine transcendence. In response to my suggestion that he was a pantheist, Burhoe argued that God was transcendent. There was more to God than the world God created. Even though Burhoe had earlier identified God with natural selection, in later writings he preferred to speak of the total system of reality giving rise to the universe, life, and humanity. God was thus epistemologically transcendent for Burhoe. God was also functionally transcendent. The future course of evolving culture, life, and universe could not be predicted, because of the complexity of the total, creative, reality system Burhoe called God. And when I asked whether God was ontologically transcendent, beyond the totality of the universe, Burhoe did not deny that possibility. I think that in his own way, but without developing it, Burhoe held a view of God that bore some similarity to that of Gordon Kaufman when Kaufman speaks of divine mystery (Kaufman 1996).

Even though I think it fair to say that by and large Ralph Burhoe is a naturalistic theologian, he consistently refused to allow himself to be characterized with any particular label. Just as he was open to a variety of religious traditions as long as they functioned to enhance life and human well-being, so he was open to richness in his own theology. He does ask, however, that people attempt to understand religion and its place in society with the ever-evolving tools and concepts of science. He also asks that theology, whatever else it might be, attempt to express itself in a way that is credible for those living within the context of a scientific worldview. Not everyone lives in that worldview. However, for those who do, Burhoe provides a scientific theology and asks others to join him in this enterprise.

As a result Ralph Burhoe leaves us a framework for understanding religion in an age of science, and a theology upon which others can build. His legacy is open-ended. He cultivated my thinking personally when he rejected the first manuscript I submitted to *Zygon*. He continues to cultivate my thinking and that of many others because of the richness of his own multifaceted, unfinished work. Ralph Burhoe helped us to understand the epic of an evolving universe. He gave us a vision of God as a functioning system continually creating that universe with its life, humanity, culture, religion, and science. He has now become a part of the evolutionary epic, but his writings still encourage



others to think in the context of science about God's active presence in the ongoing creation of our world.

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