

## Religion, Science, and Education

### A Statement for Discussion

--George A. James

In India, scientific organizations, universities, and research institutes have achieved prodigious results in examining and monitoring levels of pollution in the principal rivers of India, including the Yamuna. Communities of researchers and engineers have achieved significant knowledge of the intricacies of river systems. In the scientific community in India there is now a large body of knowledge concerning strategies of wastewater treatment and management, flood control, disaster management, water quality modeling, and knowledge of what levels of river pollution become harmful to consumption and bathing by human beings. But knowledge in itself and especially in the possession of specialists in water problems does not in itself change the condition of the river. On the other hand the practices of devout Hindus continue to express veneration towards the principal rivers of India, the Yamuna in particular, and celebrate their life giving qualities. Between the religious practice of Yamuna worship and the scientific knowledge of the degraded and harmful condition of the Yamuna there lies an enormous gap. Religious professionals often acknowledge that the worship of the river cannot occur as it once did because of the harmful levels of toxins the river contains. In some cases they compensate by using bottled water purchased in the markets to perform rituals that celebrate the purity and life giving qualities of the river. In this and other ways Yamuna worship continues while levels of toxins in the river increase. What does it mean, both scientifically and religiously, when an ancient ritual such as the bathing of

the Krishna Murti in the waters of the Yamuna, is performed not with the waters of the Yamuna but with scientifically purified water? Are there creative ways to address the gap between the scientific knowledge of the condition of the river and the attitude of worship that pertains to countless devout Hindus? Can scientific knowledge of the condition of the river be anything more than a deterrent to the expression of religious devotion? Do temples and other religious organizations, religious leaders, priests, pilgrims, and devotees have anything to contribute to a solution to river pollution?

Some scholars have seen the root of the present environmental crisis, of which the condition of the Yamuna is one manifestation, in the religious traditions of the West. It has been argued that the a conception of a creator who fashioned the human being as a special creature uniquely endowed with a soul and placed the human being in a position of dominion over nature to use it according to his own desires is an environmentally destructive ideology. It stands, it is argued, in stark contrast to traditions of Asia, and of India in particular, that have seen divinity in nature itself. Other scholars have contested these claims about Western religion, and about an Eastern alternative to the Judeo-Christian ideology. They have argued that a close examination of the sources of Western religion reveals an ethic of stewardship for the environment. Nevertheless, among religion specialists who are occupied with the environment there is wide recognition that the religious and spiritual traditions of Asia and of India in particular express insights and values that constitute, or at least have much to contribute, to a viable environmental ethic. The difficulty is in the question of how these values can be implemented to close the gap between scientific knowledge of the condition of the river and religious devotion. How can they be implemented to instill behavior, both at the private and personal level and at

the level of public policy, to address the environmental crisis, and the crisis of the Yamuna.

The recent history of India and of the United States presents some notable examples of the manner in which religious values pertaining to nature have motivated action towards environmental protection. In India, the 1970's saw the emergence of one of the most successful grassroots movements to protect the native trees of the Western Himalayas, a movement inspired in large measure by the understanding of the significance of the forests in the religious and spiritual traditions of the people. It was called the Chipko Movement. During this movement, gatherings of village women were inspired by stories from the Bhagavata Purana of the life of Krishna in the forests of Vrindavan. They tied Rakees around the trees as an expression of their familial relationship to them and their intention to protect them. They vowed that if necessary they would give their lives to protect their forests. The result of their struggle was an eventual moratorium, in the state of what was then Uttar Pradesh and later extended to Himachal Pradesh, on the felling of green trees for commercial purposes above the altitude of 1000 meters. In the United States in the mountains of Appalachia evangelical Christians have come together to protest a strategy of coal mining known as mountain top removal, a practice that destroys mountain landscapes, pollutes the rivers and reeks havoc on the ecology of the region. Their inspiration and motivation comes largely from a new look at Biblical injunctions toward the stewardship of nature. The human being was placed in the garden that God created not to dominate it but to till it and to care for it. This on going movement may eventually result in legislation to eliminate or limit this destructive mining practice.

Both of these examples are specific battles related to imminent destruction. In the case of the Chipko movement, contract felling was an immediate threat to the life and livelihood of the local people. In the case of Appalachia, mountaintop removal remains a perceptible threat to a landscape on which the local people have dwelt for generations and to which they feel an emotional as well as a material bond. What about conditions when the threat to the environment is gradual and cumulative, and has developed over time? Are there effective ways, have there been effective ways, in which the environmental values embedded in the religious and spiritual traditions of India have informed or might inform and educate the public about the gravity of the condition of the Yamuna River. Are there ways to bring these values into the public arena to support the practice of environmental protection?

For some, one obstacle to any public engagement with religious and spiritual values in the protection of nature is the status of India as a secular state. In the United States as well as in India the importance of the separation of matters of religion from matters of state is widely acknowledged. On the face of it, this means that all religions are to be treated equally before the law. No particular religion, not even the majority religion, should be favored above others. The other side of this doctrine both in India and in the United States is that the state has no right to interfere with the free practice of religion. The problem, then, is not with engagement by Hindus or Christians with the environmental values embedded in the Hindu religious tradition or in the Christian tradition, but with the public perception that the engagement with these ideas will support the political agenda of those who would like to establish one religion in a position of dominance over others. Like America, India is a pluralistic country to which, over the

course of millennia, religiously oppressed peoples have fled and settled. Environmental activists in India such as Sunderlal Bahuguna and Indu Tikekar have acknowledged the environmental insights not only of the Hindu, but of all the great religious traditions. The engagement by Hindus with the environmental values embedded in the Hindu religious tradition thus contravenes the secularism of the Indian state no more than the engagement by Christians with the value of environmental stewardship contravenes the appropriate separation between matters of church and state. Nor does the engagement with the environmental values embedded in the Hindu or Christian religious traditions entail any reduction or denial of the environmental insights of other religions. There is, therefore, as much reason for Hindus to be engaged with Hindu environmental values as there is for Muslims, Sikhs, Parsis, Jains, Buddhists and others to be engaged with the environmental values embedded in these religious traditions. The environment is a common cause in the religions of the world.

But how is this to be done? How, and in what way is it appropriate for Hindu temples and other religious organizations to advocate for well being of nature, and particularly for the health of the Yamuna River? In what way and to what extent is it appropriate for scientific organizations to engage with the knowledge of the River embedded in the religious tradition? As different from one another as are the Chipko Movement in India and the movement in the United States against mountain top removal, it is clear that they had or have one important feature in common. Both the Chipko Movement and the protest against mountaintop removal in Appalachia had or continue to have a strong educational component. In the case of the Chipko movement, spiritual discourses on Hindu scriptures called *Bhagavad Kathas* were a critical support for the

Chipko activists. This educational strategy, however, was preceded by others. While the Chipko movement seemed to have burst into international awareness in the mid-1970's, this attention occurred at the end of a development of educational preparations that spanned several previous years. Between 1955 and 1973 *sarvodaya* workers such as Sunderlal Bahuguna undertook *padyatras* or foot marches to remote mountain villages to raise awareness about the condition of the mountain environment and the abuse to which their forests were subject. Today in Appalachia, numerous preachers, laypersons, and others are undertaking Bible studies in Churches, in homes, and also by means of the internet. They are exploring the injunctions to stewardship for nature in passages in the Bible they had not before noticed, and in which they are finding support in the struggle to save their land. In India today there are striking examples of educational strategies that have engaged with religious practices to raise awareness of environmental conditions. In an edition of *Daedalus*, edited ten years ago by Mary Evelyn Tucker and John Grim, Vasudha Narayanan describes a practice begun at the large temple complex at Tirumala-Tirupati in Andhra Pradesh. Devotees approaching the temple complex located in an area that was once, but is not longer, densely forested read billboards that carry a message adapted from the Laws of Manu, "A tree protects: let us protect it." To address the forest degradation in the region, the temple had begun a religious practice called the *Vriksha Prasada*. The temple had established a nursery wherein it germinates sapling trees from the seeds of many native species. Today it encourages pilgrims to take home a tree sapling as *prasada*, to plant in the vicinity of their home where they can experience a piece of the sacred space of Tirumala where they live. This is an educational program that encourages the planting of trees but also raises awareness of the *dharma* of care for

the environment enjoined in the scriptures. I found another striking example during Durga Puja that I experienced for myself a few years ago in Kolkata. During Durga Puja temporary temples or Pandels to Durga and her children are constructed all over the city. One of the ways to celebrate the season is to visit as many of these Pandels as a person can manage in the course of the festivities. The images of Durga produced in these Pandels are a significant display of public art that is also distinctively religious. Often the images express contemporary concerns. I encountered one in which the association of Durga with nature was especially prominent. In this image she is represented as embodied in nature and particularly identified with the forest. But the representation of this particular forest is as a forest that has been abused with limbs of the trees severed so that the scars on the branches that remain resemble the shape of weeping eyes. The message is clear. Mother Nature has been abused, she is weeping from the abuse she has received from the hand of human beings.

What about the Yamuna? The image of Yamunaji, to which David Haberman has drawn our attention, as the goddess who is ailing and dying, may be one of the richest environmental metaphors to be generated in recent years. It is striking first because it coheres with scientific knowledge. In its course through the centre of Delhi, the Yamuna is without dissolved oxygen. Scientifically speaking, in Delhi the river is dead. The image is striking secondly because it engages us with traditional religious knowledge of the river as Mother. To what extent might this metaphor address the gap between knowledge of the condition of the river generated by science and the religious practice of the people? A possible strategy to address this gap may be found in the educational facilities of temples and other religious organizations, and in the educational facilities of

universities and research agencies working to generate knowledge of the condition of the river. The message is not that river worship is meaningless in the light of evident pollution of the river. On the contrary! The message is that the evident pollution of the river imposes the obligation upon the devout to care for the ailing Goddess. The death of that goddess, if effective measures are not immediately taken, is immanent. This message might be communicated by a number of related strategies. One is to involve scientists who can speak in scientific terms about the condition of the river in festivals in which religious practitioners celebrate the life of the river. Such encounters could provide a forum to raise consciousness about the threat to the deity by increasing river pollution. Another is the participation of priests, religious practitioners, and educated laypeople in scientific forums in which the material condition of the river is addressed. A third would be for scientists and religious leaders to participate in collective *padyatras* the length of the Yamuna to raise both religious and scientific awareness about the threat of pollution to the goddess and to her people to whom she belongs.