Researchers have recently uncovered new insights into ancient Sanskrit texts, revealing surprising depths of knowledge in the field of cosmology.

Dr. Richard Thompson, a renowned expert in probability theory and mathematical modeling, presented lectures on these topics. Thompson, a Ph.D. from Cornell University, has been a prolific author of peer-reviewed articles and books. Some of his notable works include *Computer Simulations of Self-Organization in Biological Systems*, *Forbidden Archeology: The Hidden History of the Human Race*, and *Mysteries of the Sacred Universe*.

In May 2004, Dr. Thompson gave a well-received lecture on "The Encoding of Astronomical Knowledge in an Ancient Sanskrit Text." He highlighted the ancient text's unexpected depth of knowledge in ancient cosmology. This knowledge is encoded in multiple interpretations of the text, supported by a series of textual statements.

One classical text in India, *The Bhagavata Purana*, was discussed in greater detail in a subsequent lecture. Dr. Thompson described a system of cosmic geography based on this ancient text, which included ring-shaped features labeled as oceans and islands. He explained that while these dimensions might appear to describe a flat earth, careful examination reveals an accurate map of the solar system up to Uranus.

"This system looks like an elaborate account of a flat earth, with precise dimensions of geographical features given in terms of a unit of distance called the yojana. However, when these dimensions are carefully examined, they reveal a map of the solar system out to Uranus, with accurate values for the closest and greatest distance of each planet from the earth."
India’s Foreign Ministry Secretary, C. M. Bhandari, addresses UMass Dartmouth Indic Studies Seminar

The Center for Indic Studies hosted a special seminar conducted by Mr. C. M. Bhandari, the Joint Secretary for the Ministry of External Affairs in the federal government of India. Bhandari was returning from South America, where he represented India at the G-15 Economic Summit. Bhandari has been a brilliant scholar of science and philosophy throughout his career. He joined the Indian diplomatic service in 1974, serving in Bangkok, Oslo, Lagos, and Canberra. He also served as India’s Ambassador to Cambodia, and as Consul General in Toronto. Throughout his career in the Indian public service, Bhandari has held several important assignments at the Ministry of External Affairs. Currently he supervises India’s foreign policy relations in multilateral organizations like the United Nations and the World Trade Organization. Bhandari is author of three books, Saving Angkor, 1996; A Journey to Heaven, 1998; and Yoga Shakti, 2002.

In March, Secretary Bhandari gave a lecture at UMass Dartmouth which addressed the politics and realities associated with business outsourcing by companies in the United States and other nations.

In his opening remarks, Bhandari outlined India’s remarkable growth in many sectors, including automobiles (36.5% increase, with $2 billion in exports), Pharmaceuticals (20% growth rate, with $2.5 billion in exports), healthcare (1.3 million medical travelers to India last year, $1 billion), and biotechnology. He pointed out India’s strength in education and business culture, and the current wave of economic liberalization as major reasons for these growths.

He said that thousands of businesses in India have closed because they were rendered uncompetitive after the opening of the Indian economy in 1991. For example, India’s traditional textile sector employed hundreds of thousands of people. Today, state-of-the-art textile mills with gigantic technological capacity have replaced the older, less productive mills, thus eliminating thousands of jobs. As the world increasingly moves toward globalization in a free and fair market economy, business outsourcing is more popular than ever and India has become a prime location for that activity.

He narrated a story from his own experience as Indian Consul General in Toronto to emphasize the point that economic globalization is not just one-way traffic:

“I am reminded of a paper pulp mill in the New Brunswick province of Canada in the 1920s that had become economically unviable by the early 1970s. The government invested several million dollars in technology upgrades but could not revive it. It was closed in the early 1990s. The 300 workers were laid off, dependent on social security. The Birlas from India looked at it and decided to convert it into a rayon pulp mill. They needed the pulp for their factories in India, Indonesia, and Thailand. The plant is now running full capacity and the entire work force has been reemployed. A mill that had become obsolete for paper pulp for the North American market could be made competitive for a different product for the Asian market.”

He said the moral of the story is not to play politics with principles of economy. “We in India suffered for over two decades because of over protection.”

He further made the following remarks: “We have to create win-win situations for all stakeholders—governments, producers, financiers, employees, and above all, the consumers. The high tariff rates protected Indian industry from outside competition, but rendered it outdated, inefficient and complacent. The consumers had to pay a much higher price for a relatively substandard product. “For decades, the Indian public had to wait for years to buy a sub-standard car and pay a high price for the inefficiency of the industry. Today, the consumer can get anything off the shelf and at very attractive prices.”

Bhandari said that business out-sourcing resembles purchasing components. Today, all the major auto manufacturers of the world, including Ford, General Motors, Mercedes and others, buy auto components from India. Why should anyone treat the BPO (Business Process Outsourcing) any differently? If they do, they would only be rendering their businesses noncompetitive.

“The BPO revolution has spread in India because it is not capital intensive. It is knowledge intensive and there is no lack of knowledge in India,” said Bhandari. “In the past, India did not catch up with the rest of the world in industrialization because it lacked capital and initially even the technology to be competitive.”

Introducing Bhandari, Dr. Louis Esposito, vice chancellor for academic affairs at UMass Dartmouth, said, “There is major interest in this country to learn about India. The two million Indian-Americans, and their business connections to India,
play a significant role in American society.” At the end of the seminar, he added, “This was a very informative seminar. I learned a lot about the Indian economy and business environment.”

Dr. Bal Ram Singh concluded by saying, “In the 56 years since its independence, India has developed abundant technology and also sufficient capital resources. It has therefore been possible for India to exercise required changes in its economy in a bid to become internationally more competitive. Given the strategic alliance being forged between India and the United States based on their common interest and value of democracy, it is important for the two nations to join hands in creating opportunities for their people.”

PEARLS FROM INDIC CULTURE

On Teaching and Learning in Ancient India

By Prof. K. Srinagesh

There is a saying in India echoed from our ancient past. Like many Sanskrit sayings, it is crisp and esoteric. Maatha Pitru Guru Daiva—literally it means mother, father, teacher, God. It is not the words that are significant, it is the order in which these four words are joined. What does this order signify? It prescribes the order in which respect is due from a student. The mother takes the supreme place, next follow the father, the teacher and the god. Further, what is significant to us, it shows the place of god to be only next to the place of the teacher. This is not meant to belittle god; it is meant to prescribe that, in the order of respectability, the place of the teacher precedes the place of the god. Those who have taught in India and are now teaching here, know the difference; it is profound, shocking. But we have successfully absorbed the shock, while keeping this ancient Indian ideal hidden in a dark closet of our minds.

Now let us take a quick look at teaching and learning vis-à-vis the student of ancient India. A very distant parallel to our schools and colleges in ancient India was what is known as the gurukula, literally meaning a community of students who took abode with the teacher. The children, at the age of seven or more, were taken by their parents to one such gurukula and left to be cared for, to be taught, and to be trained under the guru’s guardianship. The child, now becoming a part of the guru’s family of students, studied whatever was considered important, serving concurrently the guru’s family in whatever way required. There were no prescribed texts, though there were scriptures to be mastered which included such arts as archery, music, astrology medicine etc. There were no structured classes or homework, and, there was no prescribed fee or remuneration to the guru. The maintenance of such gurukulas was considered a privilege (rather than a burden and responsibility) by the local ruler and/or the local wealthy families.

The student learned from the guru as well as from fellow students in the prevailing homely but scholarly atmosphere. There were discussions and debates, not in the spirit of trouncing and exulting, but in the spirit of exploring and enlightening. The students learned from life as lived it was lived, which was considered as important as studying. This period in a student’s life, referred to as brahmacharya, extended for 12 years or more. In the next phase of life known as grihastha, students would return to their parents’ home as adults ready to accept the responsibilities of family life.

QUESTIONS:

Does this system exist in any form today in India?

The system is still respected and often followed in the field of fine arts. Our greatest musicians and our greatest dancers are still trained by individual gurus. The discipline by such teachers is considered to be very rigorous, and uncompromising. Learning fine arts—particularly music and dancing—is yet to become common in the Indian schools and colleges.

What is the prevailing form of education now in India?

Education in schools and colleges is mostly similar to that in the West. This change from the traditional to the ‘modern’ form took place mostly during the British rule extending for more than 150 years, till 1947.
Delegates at Karma Yoga Conference listen intently while Dr. Martha Doherty (above left) delivers a lecture at the Karma Yoga Conference, July 24, 2004 at UMass Dartmouth. (center) Graduate student Ghuncha Ambrin asks a question. (above right) Dr. Bal Ram Singh gives a lecture at the UMass Dartmouth faculty luncheon series, "Food as Science."

Center for Indic Studies
University of Massachusetts Dartmouth
285 Old Westport Road, Dartmouth, MA 02747
Phone: 508.999.8588/508.910.6630
Fax: 508.999.8451
Email: bsingh@umassd.edu
Online: www.umassd.edu/indic

Bhagirathi
Newsletter of The Center for Indic Studies
University of Massachusetts Dartmouth
285 Old Westport Road
North Dartmouth, MA 02747