

The Himalayan fossil fraud and its aftermath

The *l'affaire* V. J. Gupta has taken a queer turn. Despite national and international protests from scientists, academics and scientific societies and also indictment by no less a person than Justice M. S. Gujral, Chief Justice (Retd.), Sikkim High Court, appointed by the Panjab University Syndicate to enquire into various allegations against Gupta, the Panjab University has let him go with a mild censure which amounts to a blatant disregard of ethical values. Gupta continues to 'guide' the students of Panjab University and desecrate the chair in the Geology Department of the University, unmindful of the national and international furore. The team from Geological Survey of India, after a visit to some of the sites, documented its findings and published the same in the *Indian Minerals*—the organ of the GSI, clearly proving the falsification of facts attempted by Gupta. The Society

for Scientific Values, the Teachers' Association of Panjab University, the Geological Society of India and the national newspapers have insisted, in the interest of scientific values and integrity of scientific community, that action should be initiated against Gupta. It is amazing that the Panjab University has chosen to ignore all the scientific and legal opinions. To cap it all, the University has now turned its uncalled-for attention on some of the co-authors who had shown courage of conviction to speak the truth about Gupta's fraudulent researches. The Gujral Commission of enquiry did not find any of the co-authors guilty of any malpractice. However, the Panjab University has chosen to punish A. D. Ahluwalia of the Geology Department. Such a victimization of a courageous co-author should be checked or else, in future, no one with conscience will come forward to speak

the truth and the scientific community will be anaesthetized. It is time the Indian scientists wake up and act. They should not allow themselves to be the butt of international ridicule and contempt. It is time a concerted action is initiated against Panjab University, by boycotting its examinations, meetings and any academic contact until it acts on Justice Gujral Commission findings and other scientific investigations against Gupta. It is necessary in the interest of fair play and scientific truth to protect Gupta's co-authors from victimization.

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Vedic mathematics

The review of the two books on Ancient Indian Mathematics by C. S. Yogananda (*Curr. Sci.*, 1995, 69, 702–703) is in bad taste. The reviewer, more than commenting on the contents of the books, shows interest in announcing that he is in the bandwagon of critics of *Vedic Mathematics* of Bharati Krishna Tirtha and in musing how mathematics should have been developed in India in post-Greek period. As regards the term 'Vedic' in the title of his book the Tirtha himself has given an explanation citing the words like Ayurveda, Dhanurveda, etc. Again, the absence of the ideas of Vedic Mathematics in the sources with which the reviewer is acquainted (many of us are not even aware of what exists in the oriental libraries and the traditional households in India and have neither the interest nor the competence to study them) does not mean that the ideas are/were not in a *pariśista* of Atharva Veda as claimed by the Tirtha. Jhunjhunwala of Indian Institute of Technology, Madras, has pointed out in one of his publications that a carpenter was aware of and used

one of the *sūtras* of the Tirtha to point out that a tradition was there, which presumably started from the Atharva Veda. The basic assumption that the printed texts available now of the Vedas is complete is again questionable. Several ancient and medieval works in Tamil, for instance, which are mentioned in later works now available, have been lost.

Yogananda and many other mathematicians seem to have their own view of what is mathematics. Mathematics, from its history, is a means of quantification. Quantification leads to computation. Conceptual ideas like measure, homeomorphism, etc. are abstractions of quantification. The part of mathematics which Yogananda and others hail as great also wants invariant quantifiers: Betti numbers, class numbers, etc. It was no surprise that ancient and medieval Indians concentrated on computation. Most of modern mathematics started from other branches based on utility. For instance, Fourier analysis. Thereafter to pass their own time with what they were capable of, mathematicians have abstracted the ideas.

However, a mathematician who does abstract differential geometry wants to highlight the importance of his topic (*not* their results!) by telling the world that physicists use their subject. In fact, if the Indians had been original and continued the work of their ancestors with their own originality, Indian mathematicians would have challenged the supercomputer and would have used fuzzy logic everywhere making the entire world look in amazement. Tinkering with western ideas and building empires has been the sole capability of Indian scientists!

The reviewer betrays his ignorance in many of his statements. *Yuktibhāṣa*, a work of Jyeṣṭhadeva, contains arguments establishing results which are acceptable to keen students like D. T. Whiteside (the reliable editor of Isaac Newton's mathematical papers). Is this not deductive logic? That π is irrational was succinctly stated by Nilakanta in his *Āryabhatīya bhāṣyam*: There will never be commensurability for both the diameter and circumference. Irrationality was known