

Review Essay

India's Knowledge Footprints in the World

Arpita Mitra

India's Contribution to World Thought and Culture, abridged and revised edition, Vivekananda International Foundation and Aryan Books International, New Delhi, 2022.

The inclusion of courses on Indian Knowledge Systems (IKS) in the new four-year Bachelor's programme across disciplines is a landmark decision under the New Education Policy. The Government of India has also in recent times invested resources for promoting research in the field of IKS. This is a positive move because nearly 200 years of foreign domination, and subsequently nearly 70 years of toeing the foreign line in the field of education since Independence, have resulted in and perpetuated intellectual slavery. Suppression of our real history and achievements has led to a collective loss of memory and the promotion of skewed interpretations. These have created a distorted image of historical reality. It was in the interest of colonial rulers to suppress our history, and the revolt against western intellectual imperialism had started during the British colonial period itself. At a time when we were a subjugated people, India produced stalwarts who dared to challenge the imperialist narrative that India was an inferior civilisation that needed the civilizing mission of the white people to attain achievements in cultural, social, scientific and technological fields. The imperialist narrative was a blatant denial of India's glorious past and sterling achievements in these fields, and the reality that India has one of the oldest—if not the oldest—surviving great civilisations whose influence worldwide has been only beneficial.

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This argument of the 'glorious past' put forward by our nationalist historians during the colonial period, was challenged after independence by a group of Leftist and Left-leaning historians who critiqued the use of such an expression in relation to the early Indian past. To justify their refusal to call the Indian past glorious, they keep on harping on the ills of caste and gender division and even fabricate falsehoods such as translating 'bipeds' as 'slaves'¹ in order to tarnish the past and project a false history of India. Further, when any scholar chooses to maintain that the early Indian past was indeed glorious, they dismiss her/him as belonging to particular political ideologies. As if there is something inherently wrong and jingoistic about highlighting objective historical facts related to one's country! Nay, we should instead be ashamed that we were born Indians! In other words, they are continuing with the same imperial practice of shaming Indians for who they are.

On a happy note, our attitudes are finally changing. The recently published abridged edition of *India's Contribution to World Thought and Culture* is an invaluable resource that would aid in strengthening our knowledge and understanding about the sphere of influence that India has exerted since time immemorial. The original edition was published by Vivekananda Kendra in 1970 to inaugurate the Swami Vivekananda Rock Memorial in Kanyakumari. It was a collection of 70 essays by leading scholars of the time on various aspects of India's cultural and knowledge footprints in the world through the ages. Vivekananda International Foundation took a timely decision to bring out an abridged edition of the same, featuring around one-third of these essays. The renowned historian R. C. Majumdar had written the Foreword to the original edition, and a new addition to the present edition is an Introduction by eminent archaeologist Dilip K. Chakrabarti. While the main focus of the volume is on India's cultural, intellectual and spiritual footprints in the world from ancient times till the modern period, the book contains some invaluable articles on Indian knowledge systems as well as their spread abroad.

Outstanding Scientific Discoveries and their Wide Influence

It is to be remembered that even during British rule, we did maintain some form of intellectual and cultural autonomy. The intellectual vibrancy of the period attests to this fact. Even at the height of colonial rule, we produced scientists such as Acharya Jagadish Chandra Bose, Acharya Prafulla Chandra Ray, C.V. Raman, Meghnad Saha, Satyendra N. Bose, A.K. Ramanujan, and others, not to speak of India's achievements in

other fields such as literature, arts, and philosophy. We produced philosophers such as K.C. Bhattacharya, Hiralal Halder, G.R. Malkani and the Amalner School, and so on. The year Macaulay announced his intention of destroying India's knowledge systems by introducing English education, the very next year was born Sri Ramakrishna Paramahansa, who, along with his spiritual consort Sarada Devi and disciple Swami Vivekananda would profoundly influence the world with spiritual revival based on the principle of oneness of Existence and service of God in man. Ramakrishna's advent was also coeval with the great stir in all walks of life in colonial Calcutta, from education (Mahendranath Gupta was his devotee) to theatre (Girish Chandra Ghosh was his devotee) to science and medicine (Mahendralal Sircar was his physician and admirer). And his disciple, Vivekananda, who travelled to the West, was followed by other spiritual luminaries who effected fruitful dissemination of India's spiritual ideals in the West. All this only goes to prove India's devotion to knowledge—be it scientific or philosophical or spiritual knowledge. However, the kind of intellectual slavery we lapsed into after independence has proved to be much more fatal because it was slavery in the garb of independence.

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One aspect of IKS that has recently grabbed the attention of serious scholars, as well as created much consternation and controversy, is the history of ancient Indian science. It is to be remembered that this scholarly quest is not a product of political ideologies. This quest is, in fact, quite old. While 'science' was trumpeted as a quintessentially Western knowledge system, efforts at writing the history of India's scientific achievements were among the earliest trends in the writing of the true history of India during the colonial period. The first full-fledged work in this direction was perhaps Prafulla Chandra Ray's *The History of Hindu Chemistry* in two volumes, *Rasarnavam*, and a couple of essays by him on this particular topic. However, the efforts at highlighting India's scientific achievements had started in a piecemeal fashion even before Ray. For instance, in many of his works, Romesh Chunder Dutt talked about India's achievements in the field of science and technology. And such efforts did not stop with Ray either. We had Brajendranath Seal and Benoy Kumar Sarkar producing works on similar themes, although they were never as acclaimed as those of Ray. Thus, we already had historians of Indian Knowledge Systems during the colonial period itself.

After independence, the quest for the history of science in India continued. While there was the Marxist school of D.P. Chattopadhyay who pitted India's scientific quest in opposition to her spiritual quest, there were historians of science such as B.V. Subbarayappa, who could discern the spiritual dimensions and connections of the development of the scientific tradition in India. Subbarayappa was a stalwart and one of the pioneers in the study of the history of Indian science in the post-independence period. A chemist turned historian and philosopher of science, he was the first non-Westerner to be elected to the International Union of History and Philosophy of Science.

In the opening article of the present volume, Subbarayappa provides a succinct yet comprehensive summary of India's contribution to science in all conceivable fields.

Subbarayappa especially shows how many of these scientific ideas travelled from India to Greece, Arabia and Central Asia and influenced the growth of scientific traditions in these regions. Most importantly, Subbarayappa was writing in the late 1960s, and at that point of time, a global history of science meant an account of the contributions of the ancient Egyptians and Babylonians, Greeks, Romans, Arabs and pre and post-Renaissance Europeans. Joseph Needham's

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book on Chinese achievements in science came out in the 1950s and the '60s. India was completely absent in the global history of science. Half a century down the line, India is still absent. This is not only unfortunate for India but for the discipline of history of science itself. Thus, Subbarayappa's aim in the article was to provide a general overview of India's scientific achievements as a starting point, so that her contributions can be duly assessed. In this article, he discusses everything starting from India's contribution to astronomical knowledge to mathematics, Ayurveda, philosophical concepts about the physical world, and chemical practices, and in relevant cases, how this knowledge was transmitted abroad through various networks.

In the next essay, eminent archaeologist S. R. Rao has reconstructed the history of shipping in India from the Indus Valley Civilisation period till 600 Common Era (CE) on the basis of archaeological evidence. One of the earliest works on the history of Indian shipping was by the nationalist historian Radha Kumud Mookerjee—*A History of Indian Shipping and Maritime Activity from the Earliest Times* (1912). But Mookerjee did not have the advantage of archaeological discoveries to support his pioneering work. He

had to ransack literary sources in Sanskrit, Pali, old Tamil, old Bengali, Persian, Chinese, and Japanese, and do a survey of the monumental remains and whatever archaeological sources that were available. Since Mookerjee's work depended heavily on literary sources, it is needless to say that he was unable to reconstruct the history of Indian shipping of the protohistoric period. Writing more than half a century later, Rao had the benefit of the archaeological knowledge of the Harappan civilisation. Hence, he could dwell in detail upon the centrality of maritime activities especially for Harappan port towns such as Lothal. The people of the Indus Valley Civilisation had maritime trade contacts with regions as far off as Mesopotamia. It is unfortunate that Lothal, which is probably one of the oldest docks in the world, has been nominated for enlisting in the UNESCO World Heritage Sites, but the application is still pending. It goes without saying why Lothal has been selected by the government for the establishment of the National Maritime Heritage Complex. After an extensive detailing of the history of shipping during the Harappan period, Rao briefly discusses the mention of port-cities in the Mahabharata and especially the Harivamsa. Subsequently, Rao describes the history of shipping during the Mauryan period, Andhra Satavahana period, Gupta and post-Gupta periods. This entire history covers a wide ambit of India's maritime network with the world, stretching from the Roman Empire till South East Asia at different points in time. Despite the updating of knowledge in the field, this article is a good starting point for those who need to access this history in an easy manner.

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India's Cultural Impact

Other articles deal with various aspects of the history of India's knowledge footprints in the world. One crucial history is that of the circulation of Indian texts and stories. In an interesting article, 'Indian Influence on Japanese Stories', Hajime Nakamura narrates excerpts from some popular Indian stories that have shaped Japanese stories. Harish Chaturvedi's article on Ramayana in Asia and H. H. Prince Dhanivat's essay on the Ramayana in Thailand illustrate how popular a story Ramayana is in South-East Asian countries like Indonesia, Cambodia and Thailand, as also in China, where it was incorporated as Ramakatha in the Buddhist Jatakas. These essays highlight that the Ramayana is popular

not merely for its religious import, but also for its moral import, and as literature expressing human pathos and emotions, and above all, as a cultural artefact.

In his essay on the Hindu epic and Puranic traditions in South-East Asia, K.V. Soundara Rajan describes how Indian and South-East Asian thought and culture were fused together in South-East Asian countries. The influence and adaptation of the Indian mythologies, language and literature, and epics is discussed. Soundara Rajan also discusses the fusion of Buddhism and Hinduism in Cambodia, Java and Bali. According to epigraphical sources, the epics and even the Puranas used to be recited in the temples of South-East Asia, as was the norm in South Indian temples. In 'Sanskrit Texts and Indian Religion in Bali', T. Goudriaan discusses texts that were in circulation in Bali: Tantric Saivite texts, Balinese books on Sanskrit grammar, Balinese Veda texts, in which Veda means 'puja'. The author informs us that the Mahabharata and the Brahmanda Purana in Javanese are still recited in Bali, though Sanskrit came to be slightly modified in Bali. He also demonstrates that Hinduism is a living religion in Bali and that the fusion of Buddhism and Hinduism has occurred in Bali as well.

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In his article on a rare subject—"The Literature of Lava (Laos)"—the eminent scholar Raghuvira argues that the real name of Laos is Lava and that the Lava language is connected with the languages of Thai, Burma and the Ahoms of Assam. Raghuvira argues that the earliest literature of Lava is replete with words of Sanskrit and Pali origin, and that Sanskrit and Pali grammar, lexicography and prosody have influenced Lava language and literature. Raghuvira then discusses the most important script of Lava known as Tham, which is equivalent to 'Dharma', as also the poetry in Lava, the adaptation of Indian stories in circulation in Lava, and classical Lava theatre, which, he argues, is of Indian origin and was imported through the Khmer in Cambodia in the fourteenth century. The majority of the collection of Lava stories derives from the Panchatantra. Raghuvira also discusses Lava words of Indian origin, Buddhist canonical literature of Lava, and works on grammar, prosody, lexicography, *Horasastra* (astrology and divination), and *Nitisastra* (the art of government). J. S. Nigam also discusses the influence of India on the culture of Laos.

Spread of Indian Scripts, Languages, Philosophies in Asia

In the first part of the essay on 'Indian Scripts and Languages in Asian Countries', C. Sivaramamurti argues that it was Indian culture that unified East Asia into a single cultural unit. He demonstrates how many Asian countries derived their scripts from Indian Brahmi: the Ceylonese script is derived from Grantha Tamil, the Burmese script closely resembles the Salankayana script in vogue in the Krishna river valley, the ancient scripts of Cambodia and Annam bear the influence of various South Indian scripts at different points of time, the script of Malayan inscriptions is also derived from southern India, and in the Javanese inscriptions, one can clearly see the paleography of Pallava script of the fifth and sixth centuries. The language of the inscriptions found in all these places is mostly Sanskrit. In the second part of the essay, Krishna Deva discusses India's cultural influence on Central Asia (Khotan, Kucha, Qara Shahr, Bezeklik, Turfan, Chien-fo-tung, Shen-shen, and so on), Tibet and Nepal. Tibetan script is modelled after the late Gupta script of the seventh century and Tibetan grammar is also devised on the Indian pattern. In his article 'India: The Home of Tibetan Learning', His Holiness the Fourteenth Dalai Lama too acknowledges Tibet's debt to India.

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K.N. Dikshit writes about the Buddhist centres in Afghanistan, while B. A. Litvinsky discusses the spread of Buddhism in the erstwhile Soviet parts of Central Asia. Shigeo Kamata discusses the spread and influence of Buddhism in China. The spread of Buddhism to Central Asia and neighboring regions is much talked about, but we shy away from discussing the spread of Hinduism in these places, which was, in fact, remarkable, as evident from sculptural remains. In 'Hindu Sculptures in Ancient Afghanistan', P. Banerjee and R.C. Agrawala demonstrate that culturally Afghanistan was a part of India in early historical times. The Mahabharata mentions that the people of Bahlika (Bactria) participated in the Bharata War. On the other hand, Indians had fought with Bactrians and Soghdians on behalf of the Achaemenian rulers of Afghanistan against the Macedonian invasion of 330 BC.

Iran too was within the Indian sphere of influence, and there was mutual exchange between the two cultures. While Achaemenian rule had helped establish close ties between India and Afghanistan, Alexander's invasion and eventual victory strengthened India's commercial and cultural ties with Afghanistan and the Mediterranean world. Under the Kushanas, Afghanistan remained culturally and politically one with India. Afghanistan that remained within the Indian sphere of influence even during the early post-Gupta period, received a shock from the onslaught of the Arabs once they started propagating Islam. The Hindu Shahi dynasties of Kabul had bravely resisted the Islamic onslaught and protected India from it for 150 years. The Persian Empire fell to the Arab Muslims in 631 AD, yet Afghanistan remained with India till about 1000 AD, and the last great Hindu king of Afghanistan was Jaipala.

The second part of the essay is a goldmine of information on the Hindu sculptural remains in Afghanistan. The cult of Shiva was very popular in ancient Kapisi and Gandhara region (remember, Gandhari was a devotee of Shiva). Shaivism was popular in the North-West Frontier region, especially during Kusana times. The sculpture of this region was influenced by Kashmiri Hindu art, and archaeology has unearthed beautiful images of Shiva, Shiva and Parvati, Vishnu, Surya, Indra, Brahma, Kartikeya, Urdhvaretas Ganesa, and Mahisamardini Durga.

In another essay of the volume, 'Hindu Deities in Central Asia', P. Banerjee discusses the spread of the Krishna cult and the cult of Narayana in Central Asia, the popularity of Vishnu, Shiva and Surya worship in this region, Vaishnava influence on the Buddhist art of the region, Shaivism in Chinese Central Asia, the worship of Shiva-Shakti, and the images of Brahma, Indra, Kartikeya (Kumar), Ganesa, Mahakala and Lokapalas found in this region. It is also mentioned how Hindu gods and goddesses were popular in Japan: Shoten sama (Ganesa), Taishaku (Indra), Katen (Agni), Emma-o (Yama), Benzaiten or Benten (Sarasvati), Suiten (Varuna), Futen (Vayu), Isana, Bonten (Brahma), Jiten (Prithvi), Nitten and Gatten (Surya and Chandra), and so on.

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Right on the other side of India is Myanmar, and Upendra Thakur presents 'A Historical Survey of the Elements of Hindu Culture in Burma', where he discusses the popularity of the Vishnu Cult, worship of Nats, and the popularity of Sanskrit literature. The Burmese law-books or *Dhammathats* are Hindu in origin, and based on the Manusmriti. Scripts of southern India, especially the Pallava script, were also popular in Myanmar. Finally, Buddhism was undoubtedly a strong influence on Burma and Pagan was considered the Burmese Nalanda.

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In her article on 'India: A Major Source of Central Asian Art', Chhaya Bhattacharya discusses firstly the international routes that took India's message to Central Asia. Then she briefly discusses the Indian school of 'Gandhara Art'. She argues that Bamiyan was an outpost of North-West Indian art. Miran was an early centre of Indianised art, Khotan was home to paintings in Indian style, Kucha preserves some of the best specimens of works inspired by Indian art, the influence of Ajanta is only too evident in the paintings of the Kizil Caves, and other noteworthy sites are the Kumtura rock-cut caves, Turfan, and the Caves of Thousand Buddhas. Indian Dhyana (meditation) became Ch'an in China and that, in turn, became Zen in Japan. Thus, the Japanese tradition of Zen Buddhism can be traced to an Indian origin. In 'Dhyana in Japanese Art', Hugo Munsterberg discusses how Zen influenced Japanese art and architecture, and the influence of Ch'an paintings on Japanese paintings.

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In 'Cultural Relations of India and Korea', Raghuvira discusses how Indian Acharyas introduced Buddhism in Korea, and then how Buddhism travelled to Japan from Korea (Buddhism did not spread to Japan directly from India). He also discusses how Indian culture influenced every walk of Korean life. In his article, D. Devahuti discusses the history of contacts between India, Malaya and Borneo and cultural synthesis spanning a period of two millennia from the Old Stone Age. In the historical period, the ties between India and Malaya only strengthened and we find the influence of Shaivism, Buddhism, many Indian texts and Indian culture in general on Malayan arts, theatre,

literature, folklore, language and scripts. Borneo was probably known as Barhina-dvipa in the Vayu Purana. The state of Funan was Indianised, the art and architecture of Borneo have thrown up many Hindu images and motifs to the extent that Shaiva objects have been found

in modern Muslim establishments. Four hoards of Hindu-Javanese images retrieved from Borneo include images of Buddha, Bodhisattva, Ganesha, lion, and others.

Academician Rinchen describes the influence of Indian philosophy—both Hindu and Buddhist religions—on Mongolian Shamanism. In an unusual article, Lokesh Chandra discusses the influence of Indian culture on Transbaikalian Siberia, where we find the mention of Indra and Agni in pre-Buddhistic Shaman songs, the popularity of Sridevi or Kali, many monasteries built in the Indian style that showcase Siberian paintings and murals of Indian deities such as Sarasvati, and the popularity of Ramayana.

Moving on to the medieval period, W. H. Siddiqi discusses India's knowledge transfer to Arabia, especially in the domains of astronomy, geography, mathematics, and religion. Buddhism too had an influence on Islam, and according to some scholars, Buddha is mentioned as Fil-Kifl (of Kapil, that is, belonging to Kapilavastu) in the Qu'ran. The Islamic tradition even believed that Adam, the first man and prophet, descended on the Indian soil from heaven and received the first divine message from God. India's influence was in both intellectual and material terms. Indian merchants travelled to the Western world (Roman Empire) via Arabia during the early centuries of the Christian era. In fact, Arab civilisation grew on the riches of Indian trade and commerce. During those days, Basra was known as the 'Gateway to India'. While many Indians settled in pre-Islamic and Islamic Arabia,

Arab merchants also travelled to India and were given lands to settle down. Thus, the Moplahs of Kerala settled in India long before the Muslim invasions. In his article, Arjun Dev discusses how India was looked upon by early Muslim scholars. For example, he discusses Sulaiman's observations about India and China, Abu Zaidu-l Hasan speaking

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about the complete freedom of religion in India, Al-Mas'udi praising the high moral standard of Indians, and Alberuni describing almost every aspect of Indian life. Surinder Singh Kohli describes Guru Nanak's travels in the Middle East. Guru Nanak Dev had travelled to Arabia, and in a wonderful incident in Mecca he showed that God is omnipresent. From Mecca to Medina, people heard his spiritual discourses, and he even had a religious discussion with the Caliph in Baghdad. The author also describes the Guru's journeys in Persia and Central Asia.

Vivekananda's Message

Finally, the last essay of the volume is on the incident that changed the history of India and that of the world forever—Swami Vivekananda taking the age-old message of India—the divinity of man—to the Western soil of America and Europe in 1890s. What Buddha was to the East, Vivekananda was to the West. After this landmark visit, including his remarkable speech at the World Parliament of Religions in Chicago in 1893, the world woke up not only to India's age-old wisdom, philosophy and spiritualism, but also to the follies of excessive ambition, pride, selfishness, hatred, and violence.

Finally, what looms large is the question: What is the use of knowing all this? All this happened in the past and look where we are now! Shall we regain the lost glory? Why not? Chandrayaan-3 and Aditya-L1 missions are happening in our lifetime. Referring to the English education prevalent during his time, Swami Vivekananda had remarked that it was a completely negative education, as it destroyed our *sraddha*, that is, faith in ourselves. He said: 'A negative education...is worse than death. The child is taken to school, and the first thing he learns is that his father is a fool, the second thing that his grandfather is a lunatic, the third thing that all his teachers are hypocrites, the fourth that all the sacred books are lies!' This is exactly what the history education of the post-Independence era has done to us as well. If a child is never appreciated or criticised when needed, the child will never progress in life. So, with a nation. The only way forward is to remember the past achievements and pledge to be even better. Indians were great in the past and shall become great again. Of course, greatness has to be achieved through action, but action stems from desire, and the basis of desire is knowledge. Hence, this historical knowledge is indispensable for re-building the nation.

It is appropriate to conclude once again with the invaluable words of Vivekananda:

‘A nation that has no history of its own has nothing in this world. Do you believe that one who has such faith and pride as to feel, “I come of noble descent”, can ever turn out to be bad? How could that be? That faith in himself would curb his actions and feelings, so much so that he would rather die than commit wrong. So a national history keeps a nation well-restrained and does not allow it to sink so low.’

Note:

1. In many of her writings, the noted historian Uma Chakravarti translates “bipeds and quadrupeds” appearing in a Rig Vedic hymn as “slaves and cattle.” Bipeds and quadrupeds simply mean the “two-footed” and the “four-footed”, it is a literary way of saying “all living beings.” Many scholars too in fact translate it in this spirit. However, Uma Chakravarti chooses to translate bipeds as “slaves”, because she quite apparently wants to prove that the Aryans came from outside and subjugated the indigenous population and turned them into slaves!