

INDIAN KNOWLEDGE SYSTEM AND UZBEKISTAN: THE FABRIC OF RELATIONS



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The Indian knowledge system is unique in its antiquity and comprehensiveness. It has been rich not only religiously and spiritually, but also scientifically, literary and technologically. In today's globalized society, there is a need to rediscover and disseminate the Indian knowledge system so that it continues to inspire future generations. Indian knowledge system has played an important role in the development of human civilization for thousands of years. It is deeply rooted in the Vedas, Upanishads, Puranas, Ayurveda, mathematics, astronomy, literature and philosophy. This tradition has not only been helpful in giving direction to the Indian society, but has also had an impact on the entire world. On the other hand, Uzbekistan has historically been associated with deep cultural and trade ties with India. The contribution of these two civilizations in trade through the Silk Route, spread of Buddhism and development of Islamic knowledge tradition is unforgettable.

The Indian knowledge system is associated with the four Vedas – Rigveda, Yajurveda, Samaveda and Atharvaveda. Apart from this, Brahmin texts, Upanishads, Puranas, epics (Ramayana and Mahabharata) and other texts contain texts related to subjects like science, mathematics etc. Rigveda is the oldest known literary work in the world, in which the universe, gods and Yagya are discussed through the verses. The Brahman texts contain the details of Yagya, while the Upanishads consider the esoteric elements of monism and Soul-God. Similarly, the methods of yagyas are described in Yajurveda. Special attention has been given to music and verses in Samaveda. In Atharvaveda, knowledge related to medicine, tantra and magic is found. There is detailed mention of astronomy, medicine and philosophy. Indian mathematicians Aryabhata, Brahmagupta and Bhaskaracharya made important contributions to the discovery of zero, decimal system, algebra and trigonometry. Detailed descriptions of medicine and surgery are found in Sushruta and Charaka Samhita. Indian philosophies like Sankhya, Yoga, Nyaya, Vaisheshika, Mimamsa and Vedanta enriched the tradition of logic and knowledge. Varahamihira and Aryabhata contributed astronomical calculations, which also influenced Central Asian and Islamic science.

Ramayana and Mahabharata are not only examples of literary excellence, but also discuss subjects like religion, politics, ethics and yoga. The Puranas throw

light on the origin of creation, gods and goddesses, dynasties and morality. Jainism and Buddhism emerged, bringing significant changes in Indian philosophy. Mahavir and Buddha established new dimensions of logic, non-violence and knowledge. In the field of mathematics and astronomy, Aryabhata (5th century) wrote the treatise "Aryabhatiyam" and introduced the concept of zero. Brahmagupta (7th century) worked on algebra and gave the early concept of gravity. Varahamihira (6th century) described astronomical calculations in "Panchasidhantika". Charak Samhita, written by Acharya Charak in the field of medicine and Ayurveda, is the basis of Ayurveda. Acharya Sushruta made important contribution on surgery through Sushruta Samhita. In the field of language and grammar, Panini (4th century BC): composed "Ashtadhyayi". His "Ashtadhyayi" is the most important treatise on Sanskrit grammar. Similarly, Patanjali has contributed in both the fields of yoga and grammar.

Talking about medieval India and the knowledge tradition (1200 – 1800 AD), Islamic influence was seen on the Indian knowledge tradition in this period, along with the Bhakti and Sufi movements gave a new shape to spirituality. In the field of logic and philosophy, Adi Shankaracharya (8th century) reestablished Advaita Vedanta. Ramanujacharya and Madhvacharya established Vishishtadvaita and Dvaita philosophy. Bhaskaracharya (12th century) made important contributions in the field of science and technology through mathematics and astronomy. At this time, Arabic, Persian and Indian knowledge were mutually influenced by each other, which led to progress in science and medicine. Bhakti and Sufi saints popularized the path of Bhakti in the field of literature and art. Poets like Tulsidas, Kabir, Mirabai, Surdas enriched the devotional literature. Many texts were written in Persian language, among which Al-Beruni's "Tahqiq Mali-l-Hind" is prominent.

In the context of the modern period and the Renaissance (1800 AD – present), during the British rule the Indian knowledge tradition had to compete with Western science and technology, but during this period the Renaissance also began. Raja Ram Mohan Roy initiated social reforms in Indian society for education and social reform. Ishwarchandra Vidyasagar, Jyotiba Phule and Mahatma Gandhi tried to connect Indian tradition with modern perspective. CV in Science and Technology Raman, Jagadish Chandra Bose, Homi Bhabha and S. Scientists like Ramanujan contributed to modern science. Yoga and Ayurveda again got global recognition. India is becoming a global leader in IT and technology. The influence of Indian tradition in literature, music and art continues even today.

Both India and Uzbekistan have been centers of ancient civilizations. Historical, cultural, social and commercial relations between them have been going on for centuries. Even though these two countries are geographically different, many similarities can be seen in their culture. Cultural, historical, and trade relations between India and Uzbekistan go back thousands of years. There has been a deep exchange of ideas, religious traditions, art, literature, and commerce between the two countries since ancient times. The relationship between these two civilizations has deepened especially through the Silk Route. Uzbekistan is a

major country in Central Asia, which has been associated with India since ancient times through trade, culture and education. Cities like Bukhara, Samarkand and Tashkent have historically been centers of education and culture. Trade and cultural exchange took place between India and Uzbekistan through the Silk Road.

Indian textiles, spices and medicines reached Uzbekistan, while from there woolen clothes, horses and minerals came to India. During the reign of Emperor Ashoka, Indian Buddhist monks reached Central Asia, especially Uzbekistan, and propagated Buddhism there. Remains of Buddhist monasteries have been found in Termez and Samarkand. The Uzbekistani Islamic scholar al-Biruni studied in India and wrote the treatise "Tahqiq Mali-l-Hind", which gives a detailed description of the Indian wisdom tradition. The Uzbek scholar Al-Biruni traveled to India in the 11th century and also learned Sanskrit. Sufi saints like Khwaja Bahauddin Naqshbandi were influenced by Indian Sufi thought. Indian knowledge tradition and scientific and cultural influence in Uzbekistan can be understood through the following points –

- **Medicine and Ayurveda**

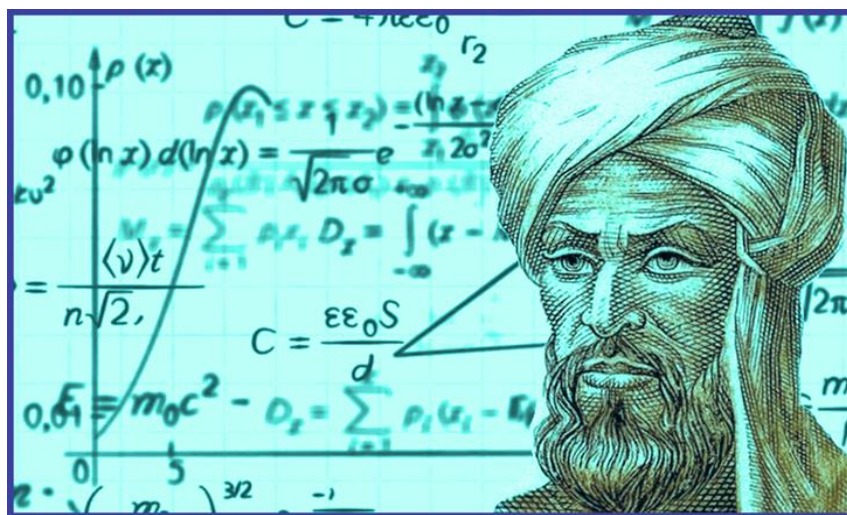
The influence of Indian medical system was seen on Uzbek medicine. Charaka Samhita and Sushruta Samhita were especially used in the Unani medical system. Ayurvedic doctors and medicines from India reached Central Asia. Medical scientists of Uzbekistan studied Unani and Indian medical systems. The use of herbal medicines in the Uzbek medical system was inspired by Indian Ayurveda. Ibn Sina (980–1037), known to the Western world as Avicenna, was a great Persian physician, philosopher, scientist, and writer. He was born in the Bukhara region of present-day Uzbekistan, which was then part of the Samanid Empire. Ibn Sina's most famous book is the "Canon of Medicine", which was considered the standard text of medicine in Europe and the Islamic world for centuries. Ibn Sina (980-1037) had a deep connection with the Indian wisdom tradition. He drew inspiration from Indian ideas in areas such as medicine, philosophy, mathematics and astronomy and acknowledged the contributions of Indian scholars in his texts. Ibn Sina incorporated principles influenced by Ayurveda and Indian medicine in his famous medical book "al-Qanun fi al-Tib" (Canon of Medicine). The influence of the principles laid down in Ayurvedic texts such as Charaka Samhita and Sushruta Samhita can be seen in his medical approach. Ibn Sina's work was a synthesis of Indian, Greek and Islamic knowledge traditions. The influences of Indian Ayurveda, mathematics, astronomy and philosophy can be clearly seen in his works. His knowledge also influenced the Indian Muslim medical tradition (Unani medicine), which is in use to this day.

Hakeem Ali Geelani Like Uzbek physicians enriched the Indian medical system. Hakim Ali Gilani helped consolidate the Unani system of medicine in India, which was a blend of Greek, Persian and Indian medical traditions. He studied Ayurvedic texts and incorporated many Indian medicinal plants into Unani medicine. He prepared written documents about Indian medicines and medical systems, which led to the further development of Unani medicine in India.

Influenced by Indian yoga, tantra and Ayurvedic philosophy, he viewed health and medicine from a holistic perspective. Hakim Ali Geelani had a deep connection with the Indian knowledge tradition. He enriched Indian medical science by coordinating Ayurveda and Unani medicine. His works played an important role in the development of medical science not only in India but throughout the Islamic world. His legacy can still be seen in the Indian-Unani medical system today.

- **mathematics and astronomy**

Abu Abdullah Muhammad ibn Musa al-Khwarizmi (780-850 AD) was a great mathematician, astronomer and geographer. He is called the "Father of Algebra" and his contribution to modern mathematics is extremely important. He was born in Khwarezm (today's Khiva), Uzbekistan, and hence his name "al-Khwarizmi". Khwarizmi, a famous mathematician from Uzbekistan, developed algebra on the basis of Indian mathematics. The decimal system and the concept of zero reached Central Asia and then Europe from India. The Uzbekistani scholar Khwarizmi accepted the influence of Indian mathematics and laid the foundation of algebra. Khwarizmi studied Indian mathematics and incorporated the Indian numerals (0–9) into Islamic mathematics. He popularized the Hindu-Arabic number system, which laid the foundation of modern mathematics. His books helped spread Indian mathematics to the Arabs and then to Europe. His works served to bridge the mathematics and science of India, Arabia, and Europe. Even today his contributions are visible in modern computer science, mathematics and astronomy.



(Picture source - <https://learnnooraniqaida.com>)

Abu Rayhan al-Biruni (973-1048 AD) was born in the Khwarezm region of present-day Uzbekistan. He is considered one of the greatest polymath scholars of the medieval Islamic world. Al-Biruni came to India with Mahmud Ghaznavi in 1017 AD. He deeply studied the religion, philosophy, astronomy, mathematics, medicine and culture of India. He learned Sanskrit language and studied Hindu texts. Al-Biruni wrote his famous book "Kitab-ul-Hind" (Tahqiq Mali al-Hind), in which he described Indian knowledge and science in detail. In this he threw light

on India's social life, religious beliefs, customs, science, mathematics, astronomy, and medical system. Al-Biruni studied the works of Indian mathematicians and understood Indian theories of zero, the decimal system, and trigonometry. He wrote several treatises on astronomy and geometry, influenced by the works of Aryabhata and Brahmagupta. He studied Vedanta, Sankhya, Yoga and Buddhism. According to him, Indian philosophies contained deep scientific and rational thinking. Al-Biruni's works played an important role in the European Renaissance and Islamic science. His books continue to be a valuable source for the cultural relations between India and Central Asia.



(Picture source -

<https://iranpress.com/al-biruni-what-iran-is-known-for>)

Mirza Ulugh Baig (1394-1449) was from the Samarkand region of Uzbekistan and was a great astronomer and mathematician. He was also the ruler of the Timurid dynasty. Influenced by Indian astronomy, he established an observatory in Samarkand, called "Ulugh Beg Observatory". The astronomical table named "Ulugh Beg Zij" prepared by him was inspired by the principles of Indian astronomy. He accurately calculated the movements of the planets and the positions of the stars. His calculations became an important foundation for modern astronomy. He studied the Indian calendar system and linked it with Islamic and European astronomy. Ulugh Beg made a deep study of Indian mathematics and astronomy in his observatory. He adopted Indian methods in his research and propagated them in Central Asia. His works also influenced later European scientists such as Tycho Brahe and Kepler.



(Image source -Ulugh Beg, Timurid painting 1425

https://en.wikipedia.org/wiki/Ulugh_Beg#/media/File:Ulugh_Beg,_Timurid_painting_1425-50.jpg)

- **Architecture and Art**

There is a striking similarity in the architecture of India and Uzbekistan. The architectural influence of the blue-tiled mosques and mausoleums located in Samarkand, Bukhara and Khiva in Uzbekistan can be seen on the Mughal period buildings of India such as the Taj Mahal, Fatehpur Sikri and Delhi's Jama Masjid. A mix of Islamic and traditional architectural styles can be seen in both the countries. The Mughal dynasty, which had its roots in Taimur and Samarkand in Uzbekistan, reshaped architecture in India. The influence of Taimur's architectural style can be clearly seen on Mughal architecture in India. During the Mughal period, artists, architects and scholars from Samarkand and Bukhara came to India and gave new heights to architecture in Delhi, Agra, and Lahore. The influence of Uzbek art has been seen on the Mughal miniature painting style. The influence of Central Asian painting is particularly reflected in the Baburnama and Akbarnama. Indian and Uzbek music also have many similarities.

While ragas and raginis have special importance in Indian classical music, traditional tunes and suras are also used in Uzbek folk music. In Uzbekistan **"Shashmaqam"** A famous classical music style is called Raga system, which is very similar to the raga system of Indian music. "Shashmaqam" is a combination of two Persian and Uzbek words "shash" (six) and "maqam" (musical chord system), which means "six maqams". It is based on the system of six main maqams. Shashmaqam has a "maqam" system, which is similar to the "raga" system of Indian music. In both maqam and raga, compositions are composed with specific swaras (notes) and rhythm. Extended singing such as "alaap" is important in Shashmakam and Indian Dhrupad styles. Indian music consists of "Taal" (e.g. Tritaal, Jhaptaal, Ektaal), while Shashmaqam also has specific rhythmic structures, called "Usuli". There are many fundamental similarities between Shashmaqam and Indian classical music, particularly in the raga and maqam system, rhythm structure, and Sufi and Bhakti traditions. Historically both musical styles have been influenced by each other and a wonderful cultural fusion can be seen in them. A lot of similarity can also be seen between the Indian Kathak dance and the traditional dance of Uzbekistan like "Lazgi". In both dance styles, hand gestures and foot movements have special significance. Indian cultural programs are organized there, where Uzbek artists present Indian art forms.

•literature and language

The literature of Uzbekistan, particularly texts written in the Persian, Chagatai and Uzbek languages, has been inspired by Indian literature and philosophy. The teachings of Buddhism had a profound influence on the literature and language of Uzbekistan. Buddhist texts were translated and many Buddhist monasteries were established in cities such as Samarkand and Bukhara. Another example of interaction between Indian and Uzbek literature **Ameer Khusro** (1253-1325 AD). He was originally of Turko-Mongol descent, but was born and raised in India. He gave a new height to Persian, Hindavi/Hindi (Braj language), literature. Indian music, philosophy and devotional elements are reflected in his works.

Khwaja Bahauddin Naqshbandi (1318-1389) He was a Sufi saint of Central Asia, whose influence is visible not only in Uzbekistan but also in India and the entire Islamic world. He is considered the founder of the Naqshbandi Sufi order, which places special emphasis on simplicity, meditation and self-control. His connection with the Indian wisdom tradition is deeply rooted at the spiritual, cultural and philosophical levels. The Naqshbandi order has a deep influence on the Indian Sufi tradition. Yoga, meditation and bhakti traditions were already prevalent in India, and the teachings of the Naqshbandi tradition bore many similarities to these. A similarity can be seen in the thoughts of Indian saints, especially the saints of the Bhakti movement and the Sufi saints. Khwaja Bahauddin Naqshbandi's teachings focused on silence and inner meditation (zikr-e-khafi), which resembled Indian yoga and meditation practices. He emphasized inner purity more than outward appearance, which is in line with the trend of self-research and meditation in the Indian saint tradition.

Khwaja Ubaidullah Ahrari and Khwaja Baqi Billah were prominent among the saints who carried forward the ideas of Khwaja Bahauddin Naqshbandi. Khwaja Baqi Billah strengthened the Naqshbandi tradition in India, and his disciple Sheikh Ahmed Sirhindi carried the tradition further. Shaikh Ahmad Sirhindi (1564–1624), known as Mujaddid-alf-i-Sani, had a profound influence on Indian Islamic society and the Sufi tradition. He promoted spiritual discipline and gave a new direction to Islamic mysticism. The teachings of Khwaja Bahauddin Naqshbandi correspond to many aspects of the Indian wisdom tradition. His tradition enriched the Sufi movement in India and promoted spiritual exchange with the Bhakti movement. There are deep connections between the Naqshbandi tradition and the Indian yoga, meditation and bhakti traditions, indicating that the Indian subcontinent has exchanged and coordinated various knowledge traditions over the centuries.

The Persian language was widely used in the Mughal court, which was linked to the literary tradition of Uzbekistan. Scholars like Amir Khusro and Abul Fazal further strengthened this cultural bridge. The influence of Persian and Arabic languages can be seen in Uzbek and Hindi languages. There are many words in Sanskrit, Hindi and Urdu which are also used in Uzbek language. For example, words like 'market', 'book', 'Navroz' are prevalent in both cultures. Historical between Uzbek and Hindi languages, Many words are similar or identical due to cultural and linguistic connections. Many words in Uzbek and Hindi, Persian, Arabic and Turkish are similar in origin. These languages have been historically related to each other, especially business, Sufi tradition, And through the literature of the Mughal period. These similar words show that contact and mutual influence between the two languages has been going on for a long time. The main reason for this is that both the languages are Persian., Has been influenced by Arabic and Turkish languages. Here is a list of some words with similar meanings in Uzbek and Hindi:

क्र	उज़्बे	हिंदी / उर्दू में प्रयुक्त शब्द
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मांक	की शब्द	
1	shakar	शक्कर / चीनी
2	bozor	बाज़ार / हाट
3	kitob	किताब / ग्रंथ
4	vaqt	समय
5	dunyo	दुनियाँ / विश्व
6	shahar	शहर / नगर
7	ustoz	उस्ताद / शिक्षक
8	mehna t	मेहनत / परिश्रम
9	inson	इंसान / मानव
0	1 do'st	दोस्त / मित्र
1	1 siyosa t	सियासत / राजनीति
2	1 qonun	क़ानून / विधि
3	1 qaror	फ़ैसला / निर्णय
4	1 Osmo n	आसमान / आकाश
5	1 daryo	दरिया / नदी
6	1 hisob	हिसाब / गणना
7	1 dushm an	दुश्मन / शत्रु
8	1 chorra ha	चौराहा
9	1 mahal la	मोहल्ला
0	2 somsa	समोसा

Special centers for the study of Indian philosophy and literature have been established in the universities of Uzbekistan. Today India and Uzbekistan are active partners in education, trade and cultural exchange. Universities of both the countries are promoting the study of Indian philosophy, yoga and Ayurveda. Also, Hindi and Sanskrit studies are also becoming popular in Uzbekistan. The Department of Hindi Language and Indian Studies has been opened in Tashkent State University. The Indian Embassy organizes Hindi classes. The Indian Government provides scholarships for Uzbek students through ICCR (Indian

Council for Cultural Relations). India and Uzbekistan are cooperating in pharmaceuticals, information technology and textile industries. India and Uzbekistan are allies of each other in the fields of defence, counter-terrorism and energy security. Relations between Indian knowledge tradition and Uzbekistan continue for thousands of years. India has had a deep influence on Uzbekistan in the fields of Vedas, philosophy, mathematics, Ayurveda and art. The study of this cultural and intellectual heritage will be helpful in further deepening the historical relations between the two countries. Bollywood films and music are extremely popular in Uzbekistan. Indian films have influenced family values and love stories in Uzbek society. There has been increased cooperation between the Indian film industry and Uzbek filmmakers.

Indian and Uzbek cuisine have many similarities. Rice, wheat, spices and meat are used in both countries. The traditional dish of Uzbekistan "Plov" (which is similar to Indian biryani/pulao) is very popular. In addition, samosa ("samsa" in Uzbek language) and naan (similar to Indian naan) are also loved in both countries. The use of spices also holds a special place in the kitchens of both the countries. There are amazing similarities in the festivals celebrated in India and Uzbekistan. "Nowruz" (Persian New Year) is celebrated with great enthusiasm in both India and Uzbekistan. It marks the arrival of spring and has special significance with traditional music, dance and cuisine. A similarity in the celebration of colors can be seen between Holi in India and the Spring Festival of Uzbekistan. Wedding traditions are also very similar to each other, where family and society play an important role. Uzbekistan and India also have deep religious and spiritual ties. Due to the influence of Buddhism, many Buddhist sites are found in Uzbekistan. After the arrival of Islam, the Sufi tradition flourished in both countries. The shrines of Sufi saints of Ajmer Sharif in India and Bukhara and Samarkand in Uzbekistan are still the center of people's faith.

Overall, we can say that relations between India and Uzbekistan are centuries old, linked by historical, cultural, spiritual and educational exchanges. The Indian wisdom tradition has left a deep mark in Uzbekistan, especially through Buddhism, yoga, Ayurveda, philosophy and language. In ancient times, trade and cultural communication was established between India and Central Asia through the Silk Route. In the medieval era, scholars of Sanskrit, Persian and Arabic contributed to the exchange of knowledge. Sufi saints had a deep influence on Indian spirituality. In modern times, educational and cultural cooperation between India and Uzbekistan continues. There is enthusiasm in Uzbekistan for Indian yoga, Ayurveda and the Hindi language, while Uzbek classical music and art are becoming popular in India as well. Thus, relations between the Indian knowledge tradition and Uzbekistan are rooted in historical bonds, educational contributions and cultural interaction, which continue to foster mutual cooperation and prosperity even today.

Reference list

1. Indian Knowledge Systems, Volume – 1, Editors Kapil Kapoor, Avadhesh Kumar Sing, INDIAN INSTITUTE OF ADVANCED STUDY, Shimla, D.K. PRINTWORLD (P) LTD. New Delhi
https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004120632194475nis_hi_Indian_Knowledge_Systems.pdf
2. International Peer Reviewed Edited Book on INDIAN KNOWLEDGE SYSTEMS Editor-in-Chief DR. DILIPKUMAR A. OD, DR. MANASI S. KURTKOTI, RED'SHINE PUBLICATION 62/5834 Harplingegränd 110, LGH 1103. Älvsjö, 12573 Stockholm, Sweden, Editors, 2024
3. Indian Knowledge System, Dr. Rajesh Timane¹, Dr. Priyanka Wandhe², Head, MBA Department¹, Assistant Professor, MBA Department², Dr. Panjabrao Deshmukh Institute of Management Technology and Research, Dhanwate National College, Nagpur, © 2024 JETIR February 2024, Volume 11, Issue 2 www.jetir.org (ISSN-2349-5162) <https://www.jetir.org/papers/JETIR2402475.pdf>
4. <https://www.education.gov.in/nep/indian-knowledge-systems>
5. https://openlibrary.org/works/OL28345694W/Introduction_to_Indian_Knowledge_System
6. https://www.academia.edu/119981256/Life_Skills_and_the_Indian_Knowledge_System_Integrating_Ancient_Wisdom_with_Modern_Development
7. Friedrich Max Muller: The six Systems of Indian Philosophy; Publisher, University Press of the Pacific, September, 5, 2003.
8. <https://iksindia.org/>
9. भारतीय ज्ञान परंपरा व शोध-डॉ॰ मुकेश जैन, पद – सहायक आचार्य (संस्कृत), पदस्थापन – राजकीय महाविद्यालय बाड़मेर (राजस्थान, अनुकर्ष: ISSN : 2583-2948, <https://www.alliance.edu.in/anukarsh/archives/vol-2-issue-3/hi/mukesh-jain-lekh.pdf>
10. https://www.researchgate.net/publication/382279056_bharatiya_jnana_parampara_evam_sanskrti_parampara_aura_dharohara_ka_gaurava
11. भारतीय ज्ञान परंपरा का भू-सांस्कृतिक और सभ्यतागत संदर्भ- प्रोफेसर रविंदर सिंह, फ़ेलो IAS शिमला, https://www.researchgate.net/publication/375423584_bharatiya_jnana_parampara_ka_bhu-sanskrtika_aura_sabhyatagata_sandarbha