A Terrible Bargain
Rajesh Kochhar and Partha Majumder

Professor Joy Sen researched and conceptualized the publication of a 2022 calendar by IIT-Kharagpur (IIT,K) titled “Recovery of the Foundations of Indian Knowledge Systems.” In addition to months, dates and days, this calendar carries a narrative of our past. In particular, the narrative attempts to convince the reader that the creators of the vast Harappan civilization were also the authors of the Rigveda, and that motifs of Harappan seals are alluded to in the Hindu sacred texts. In this attempt, many incorrect or obsolete claims have been made.

The IIT-K calendar essay declares that “glaciers of Mount Kailash is the source of two important river Valley Civilizations”, Indus and Brahmaputra. This is not correct. Brahmaputra originates from the Manasarovar lake region, and Indus from the Bokhar Chu glacier in the northern slopes of Mt. Kailash. The essay further claims that the “tributaries of Indus as mentioned in the Rig Veda are sourced to the Siwalik ranges in the Central-Eastern Himalayas”. This is also not correct. Rigveda is familiar with the entire Indus river system. Western tributaries of Indus like Kubha [Kabul], suvastu [swat], and Gomti [Gomal] are mentioned in addition to the Punjab rivers. No river in the Indus system arises in the Shivalik range.

The essay claims that “the entire antiquity of Indian Vedic Civilization” was deliberately limited within 2000 BCE “to best accommodate an Aryan Invasion Myth leading to a split of Vedic culture and the Indus Valley Civilization!” When Vedic texts were being interpreted, archaeology and genetics were still into the future. Rigveda repeatedly refers to Indra as purandra, the destroyer of forts. It was assumed that the forts that Indra targeted were located in India. However, when Harappan sites were excavated, it became clear that no structures matched the Rigvedic description of the forts. The scholarly consensus now is to attribute the Harappan decline to environmental issues.

The essay states that “the objectives of the Aryan Invasion is one of aggression, genetic superiority by race and skin color.” Aryan “invasion theory” is a dead horse, the flogging of which perpetually yields rich ideological dividends. The key question is whether the Aryans came from outside the subcontinent or not. If they did, it is a minor matter whether they are
to be called invaders or immigrants. Rejection of the invasion hypothesis does not automatically make Aryans, the Harappans.

The essay declares that there is “striking similarity between millions of words evident in Indian languages and others in the European Tree of Linguistics,” an inordinate exaggeration. On a more sober note, the introduction of Sanskrit into Europe, availability of large number of old manuscripts, and development of philology as a science led to the postulation of an Indo-European family of languages. Within this family two branches, the Indic and the Iranian, produced literature, Rigveda and Avesta, respectively. These two texts are so closely related linguistically that one cannot be studied without the help of the other. The differences in grammar are very small. One can find verses in the oldest portions of Avesta which by well-established phonetic substitutions can be turned into intelligible Sanskrit. Sanskrit terms like Arya, asura, hotr, kshetra, Nabhanedishta, Prthu, Vrtrahana, yajna, Yama have Avestan counterparts. Any theory on Aryans to be admissible, leave aside acceptable, must first and foremost satisfactorily explain the Indo-European linguistic commonalities and Indo-Iranian literary similarities.

Rigveda is familiar with metal (copper) and spoked wheel. The latter as a technological invention can be dated 4000 BCE. Rigveda cannot be older than this date. The IIT,K calendar essay claims to bring “the Vedic Culture and the Indus Valley Civilization (7000 BCE – 1500 BCE) under one fold;” 7000 BCE is still Neolithic era. If Aryans, the carriers of Vedic culture, were present in India at such an early date, this has serious implications: all Indo-European speakers must also be placed in India and introduced to copper and spoked wheel before dispersal.

Quite improbably, if Harappans were Aryans, Zarathushtra must also be stationed in India. The Zoroastrian texts, however, do not mention India, there is no indication of familiarity with Indus, and constantly refer to Central Asia. In a recent interview (“IIT’s Aryan thrust baffles scientists,” The Telegraph, 28 December 2021), Professor Sen accused geneticists of propagating ideas of Aryan invasion in migration and population genetics studies. This is blatantly false. As we know, genes are our inherited endowment. Individuals who have a set of common ancestors will have similar genetic endowment. A group of individuals with a different set of ancestors will have some shared and some unshared genetic characteristics with those descended from a separate ancestral group. Indeed, these shared and unshared genetic characteristics provide pillars for inferring ancestral components of contemporary population groups. Further, since genes move with people, the patterns of frequencies of genetic characteristics in extant population groups can help estimate directions and extents
of migration admixture using specific population genetic frameworks. Random genetic changes caused by various environmental factors accumulate; their frequencies usually vary across geographical regions. In the geographical region where one or more genetic changes have arisen, the frequencies of these changes are high. These changes are carried to other regions as people migrate from this region. However, in the recipient regions their frequencies are expected to be lower. If there is continued migration, the frequencies of these changes are expected to consistently decrease as one moves away from the region or origin of these genetic changes. Using this framework of expectations, there is unequivocal evidence that some “genetic signatures” – constellations of specific genetic changes – that arose in Central Asia were carried by migration of people to India. One genetic signature, “U2e” is found widely, in low and variable frequencies, in Indian population groups. The epicentre of this signature is in Western Eurasia (including Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan), as evidenced by its high frequency in that region. The inference from these data is that migrants from Eurasia (Indo-European/Aryan speakers) entered India about 4000 years ago and admixed with the indigenous populations of India, descendants of those who arrived in India on a wave of migration from out-of-Africa about 65,000 years ago. Similar evidence can be found in respect of variation in the genomic signature called R1a1a. Recent studies based on DNA isolated from fossils have confirmed that migrants from the Kazakhstan area (Eurasian Steppe) had entered India, but the date of entry was estimated to be more recent, about 2000 BCE. Population genetic studies have neither provided evidence of any Aryan “invasion” nor are these studies helping propagate the “invasion myth.” Objective analyses of genetic data from living and long-dead individuals have revealed that people from Central Asia had entered India between 2000 and 4000 BCE, not 7000 BCE as claimed in the IIT,K calendar.

The Calendar Essay also claims that the “system of Yoga and Kshema as realized and developed by the Arya Sages are synchronous.” It says that Rigveda (Mandala 10, Hymn 167, Verse 1) mentions “Yogakshema-vishayaih karma”. It does not. Similarly, the phrase “Yogebhi Kshemebhi” is said to figure in Rig Veda (Mandala 7, Hymn 36). Here the verse number is not given. A search did not reveal this phrase in the Rig Veda. So this is also likely to be false.

The IIT-K essay takes note of the racist theories of the Nazis, but plays havoc with European history. It talks of “The Two World Wars, 1914 – 1945” as if these were two innings of a single match. There is a gap of 20 years between the two wars during which Hitler with his hatefulness had risen. The racist ideology of Aryanism is not an issue in the First World War.
And yet the essay declares: “More than 120 million civilians and soldiers were killed and slaughtered between 1914 and 1945 in the name of European definition of Aryan invasion!”

The essay expends considerable verbiage condemning colonial invaders. And yet in its map of India it calls the river Ganga “the Ganges.”

There is ample evidence that Indians have contributed concepts and objects to others, but there is no reason to be uptight about accepting that others have also contributed to our culture. Assertions that Aryan speakers were “superior” are subjective and baseless; there is no reason for us to continue to debate it. In a classic case of double-speak, this kind of distortion of ancient history and archaeology is being designated “Recovery of the Foundations of Indian Knowledge Systems”. If the so-called recovery belittles rigorous scholarship, ignores scientific data, and anoints IIT’s face black, it is a terrible bargain.

Professor Rajesh Kochhar is the author of The Vedic People and Sanskrit and the British Empire; Professor Partha Majumder is a National Science Chair, Govt. of India.