Pañcavaṭi and Microvita:  
Science and Spirituality Re-Enchant Nature in contemporary Tantra Yoga

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P. R. Sarkar was a contemporary guru of \textit{tantra yoga} who commented on many social issues from a spiritual viewpoint. In the field of ecology he advocated conservation measures combined with a greater understanding of how the variety and nature of existents in the universe affected every other living entity. He made novel assertions that subtle and microscopic life forms, which he termed “microvita,” were playing a role for and against the well-being of all living entities and that human beings were in a position, through scientific and spiritual research, to understand and control their influences for the benefit of all beings.

Sarkar believed that the spiritual advancement of society was firmly bound to a harmonious relationship with ultra modern science and technology. He was a strong supporter of scientific research, pointing out that no one can stop the rapid progress of science by criticizing it. In fact, Sarkar viewed the spiritual practices of \textit{tantra yoga} as “a systematic practical science.” According to that science a human being searched for the covert, inherent divinity within by means of \textit{tantra yoga}’s meditation techniques. Sarkar was of the opinion that religion was divisive and hampered human progress while spirituality’s realizations were synthetic and contributed to social well-being. In Ānanda Mārga, the socio-spiritual organization he founded, it was a spiritual aspirant’s task to utilize internal meditation techniques from Tantrism to prove or disprove one’s own assertions that the universe was both divine and ontologically unified.

Among Sarkar’s extensive comments on the properties of plants, he described the affect of the “pañcavaṭi” or five sacred trees. These are the \textit{nimba} or margosa, the \textit{bilva} or wood apple, the śālmali or silk-cotton tree, the \textit{vata} or Indian banyan, and the \textit{aśvatthā} or pipal trees. In his 1987 book, \textit{Microvitum in a Nutshell}, Sarkar said that these trees had been planted during India’s early history to enhance sites where spiritual practitioners carried on meditation. The effect of the trees was to purify the atmosphere of noxious bacteria. The most novel of Sarkar’s affirmations concerning the \textit{pañcavaṭi} was that they had the ability to counteract the even subtler influence of previously unrecognized, negative microvita.

Sarkar defined microvita as life forms that exist, multiply and die; but that do not possess a protozoic or metazoic cellular structure. He maintained that they were not carbon-based, yet were responsible for the formation of both carbon and non-carbon atoms. Due to this, Sarkar called microvita the true cause of life and the “silver lining” between the realm of ideas and the physical realm. Among the many types of microvita that Sarkar discussed, he delineated three broad categories: those which can be detected by the latest microscopes, those whose physical or mental impact can be grasped by the mind, and those which can only be conceived of by the highly-developed, spiritually-oriented mind. Sarkar said that all microvita were smaller than atoms, protons or electrons while some types were even subtler than ectoplasm, or mind-material.
The *Pañcavaṭī*

The *nimba*, margosa or *nīm* tree is native to India, but grows in other tropical and semi-tropical areas as well. All parts of the tree have been used in natural and Ayurvedic medicinal preparations. The insecticidal and fungicidal effect of margosa oil is employed internationally in a variety of natural garden products. Trilok Majupuria traces reverence for the margosa tree back to the Indus Valley period. He wrote about several forms of protection that the margosa tree is believed to offer people as a shield against evil spirits. One category of protection is provided by proximity to or contact with the leaves, another by the disinfectant properties of the wood, while a third is produced from the smoke of burning either. Margosa trees are associated with several female deities. Madeleine Biardeau has documented the Hindu marriage of sacred trees where the female margosa and the male pipal tree are ceremonially planted so that their branches will entwine.

The *bilva*, or wood-apple, is a thorny, medium-sized deciduous tree whose root, leaves, flowers, and fruit have medicinal properties. Of special interest with regard to microvita is the Ayurvedic belief that *bilva* possesses anti-viral properties. Contemporary scientists have noted that *bilva* leaves and *bilva* seed oil could be useful in pesticides. The value of *bilva* wood was recognized in the *Sāṅkhataṇa Arāṇyaṇa* and the *Aitreyā Brāhmaṇa*. Jonathan Parry says that people who choose wood for funeral pyres in Benares try to include at least a small amount of wood like *bilva* because it is considered to be sacred. During the medieval period the *Purāṇas* recorded several stories about *bilva* trees and goddesses or demi-goddesses. The *bilva* tree is considered sacred to Śiva. It is forbidden to break the branches of a living tree because the spirits of gods are said to live on it.

The *śālmali*, or silk-cotton tree, sometimes called the Indian kapok, is a large-sized, deciduous tree that has a thorny trunk and produces spectacular-looking red or pink flowers. When the fruit matures on the tree the seeds are eventually released from it in a large ball of silky cotton. The *śālmali* is found growing in tropical and subtropical regions. Ayurvedics recognize various medicinal properties of the tree, including those of the root and flowers. The *śālmali* is mentioned in the *Ṛg Veda*, the *Rāmayāna* and the *Mahābhārata*. A tribal legend in the Oriya language claims that a human-devouring demon lives in the *śālmali* tree.

The *vaṭ* or banyan is a large tree whose legendary physical characteristics include aerial roots that spread away from the main stem and act as auxiliary trunks to support its massive crown. Various parts of the banyan are used medicinally to treat diabetes, digestive and other ailments. A seal reportedly depicting Śiva under a banyan tree was dated to the Indus Valley period. Majupuria identifies Śiva as the presiding deity of the tree. But in other places the banyan is a metonym for the Hindu triumverate itself; with Brahma as the roots, Viṣṇu as the bark, and Śiva as the branches of the tree. The *Rāmayāna*, the *Purāṇas*, *Manu Smriti*, the *Katha* and *Maitri Upaniṣads*, and the *Bhāgavad Gītā* all refer to the sacredness of the banyan. Men and women from many walks of Hindu life worship the tree because it is regarded as the abode of deities and good spirits. *Yakṣas*, *kinnaras*, and *gandharvas* are some of the *devayonīs*, or semi-divine entities, which Majupuria says are believed to live on the banyan.

The *aśvatthā*, or pipal tree, is a fast-growing, deciduous fig tree that can be found growing all over the Asian continent. Hindu believe that the spiritually elevating effect of the pipal tree is so great that disease and a person's negative karma are eradicated simply by coming in contact with it. The pipal has a reputation for medicinal properties, notably those found in its bark, gum, fruit, and leaves. Many texts mention the worship of the pipal, including the *Rāmayāṇa*, the *Bhāgavad Gītā*, the *Bhavisya Purāṇa*, and the *Upaniṣads*. The *Aṭhava Veda* asserts that all the gods have permanent seats in the pipal tree. Majupuria tells us that the rustling of pipal leaves in the wind is believed, in reality, to be the sound of *yakṣas*, *kinnaras*, and *gandharvas*. June McDaniel describes what the Tantric folk tradition calls *kula*, or lineage, trees; among these the *nimba*, *bilva*, and *aśvatthā* are usually listed.
Sarkar said that microvita were life forms of varying physical density which occupy subtle physical or ethereal space, psychic space, or the liminal area bordering the spiritual realm. They move through the media of sound, touch, light, taste, smell and ideas using bodies composed of only luminous, aerial, and ethereal elements. Sarkar claimed that microvita affect people mentally and have the ability to change the physical forms of elements. He mentioned that petroleum could be artificially synthesized by using microvita.

Microvita were life forms that were apparently known to India's ancient sages. Though the रसिः never used Sarkar's term, they were familiar with a collective of seven microvita that they referred to as devayoni. The Sanskrit word “devayoni” is understood to mean an entity of divine origin. According to Sarkar, the रसिः group of devayoni were the yakṣa, gandharva, vidyādhara, kinnara, siddha, prakritilīna, and videhalīna. The fifth or sixth-century Amarakoṣa provides a list of ten devayoni, five of which were mentioned in Sarkar's list of seven. Sarkar defined devayoni as “an entity which has a number of divine qualities,” because his monistic ontology considered all entities as having a divine origin. He said devayoni could not be perceived with the help of a microscope, but they could be inferred, and occasionally seen as spheres or points of light. Therefore he referred to them as “luminous bodies.” In his third and fourteenth chapters of Microvitum in a Nutshell, Sarkar explained seven main categories of these positive microvita.

The first type, the yakṣas, were said to be responsible for stimulating the human tendency to amass an unreasonable amount of wealth. David White says the association between yakṣas and the enjoyment of wealth can be found in the Epic and Purānic traditions. The Hindu folk tradition describes them as female demons associated with trees. But Sarkar said they were not harmful and that their desire to accumulate wealth was for the purpose of doing good works. Yakṣas are mentioned in the Maitri and Kena Upanisads, and the Mahābhārata.

The second type of devayoni, the gandharvas, were inspired by music, dance, and the fine arts. To the extent that they created divinely-inclined, subtle sentiments in others Sarkar appreciated their abilities. This particular group of devayoni are very well represented in Indian literature. They are mentioned in the Vedas, the Upaniṣads, the Mahābhārata, and the Śrimad Bhāgavatam. The kinnara devayoni desired personal beauty and aesthetic surroundings. These traits could lead a person towards refinement and the divine or away from them. The ninth or tenth-century Kaḷajñāṇanirnaya and the Mahābhārata mention kinaras.

Sarkar said that vidyādhara were entities who motivated people to acquire good qualities and assisted them in intellectual attainment. But according to Sarkar, vidyādhara gave too much importance to intellectual attainment which caused them to become embodied in the form of this particular devayoni. The ninth- or tenth-century Svachchanda Tantra describes vidyādharas.

The prakritilīna were spiritually evolved people in their last lifetime, but they had an attachment for the material world which caused them to pursue crude pleasures. In Hinduism the term “prakritilīna” is generally understood to signify merged in cosmic energy or absorbed in nature. When these entities assist spiritual aspirants they create concentration of mind accompanied by a sweet smell. Sarkar described videhalīna as devayoni that can assist spiritual practitioners, but who can also create mental distractions based on the desire for material things. When they were human beings videhalīna were tired of life's challenges and sought liberation from human physical existence.

The last category of elevated microvita that Sarkar described were the siddhas, who were lauded as “the best among the devayoni.” Here the term “siddha” does not refer to those individuals called siddhas from the lineages of Vaiṣṇava Sahajiyās, Vajrayānas Buddhists, or Gorakhnāthī Kāṇṭhaṭas. Neither does Sarkar's use of the term refer to folk tāṇtrikas or yogins generally. Sarkar's siddhas were semi-divine entities without physical bodies, who were not described as perfect. They
posessed and were distracted by occult powers. All devayonīs were considered to be at a disadvantage despite their spiritual elevation because they lacked a human physical structure which was deemed necessary in order to do spiritual practices. Sarkar wanted to make people aware of the fact that devayonīs and other microvita were neither legendary nor mythical. They impacted our bodies, minds, and environment on a regular basis.

When Sarkar first spoke about luminous bodies he did not mention the types of disembodied entities which were undeveloped spiritually and had a negative impact on people. He divided this group of microvita, which he called pretayonīs, into seven major categories; just as he had identified seven important groups of devayonī or luminous bodies. The impact of pretayonīs is to create “negative psychic complexes” which cause people to hurt themselves and others.

On the macrocosmic level Sarkar said that microvita move in a totally unrestricted fashion between celestial bodies and galaxies because they are not influenced by changes in atmosphere or barometric pressure. He discussed the intricacies of how microvita interact with people at length. Among the highlights he said that cosmic will is engaging with human beings and the physical universe through microvita. It appears that certain microvita enter the body through the sense organs at the time of perception or influence the mind in accordance with the character of our thoughts. Sarkar said that microvita come in contact with individuals at predominantly two bodily sites, the nerve plexuses of the viśuddha (5th) and ājñā (6th) cakras. After impacting hormonal secretions and an individual’s mental inclinations, microvita may move upwards or downwards along the spinal column affecting the other cakras of the body.

Microvita can be classified as inherently friendly or inimical to people, but Sarkar repeatedly said their impact was ultimately determined by who controlled them. Positive microvita were closer to the realm of ideas while negative microvita were more material. Sarkar said that the only way to eliminate negative microvita before the end of their natural life span was with an influx of positive microvita. While he was opposed to the accumulation of negative microvita and their baneful effects, it was not his objective to destroy them all. He desired instead to balance the effect of positive and negative microvita and to utilise what he claimed was negative microvita's immense power.

**Conclusion**

“This universe is ours”- and “we” means humans, animals and plants.

– P. R. Sarkar, *Microvitum in a Nutshell*

There is a tradition in Hinduism of associating beneficial spirits, as well as the occasional cantankerous spirit, with the five sacred trees that Sarkar called the pañcavati. Consequently, these trees have become identified with positive material and spiritual influences. Indigenous medical traditions, sometimes termed Ayurvedic, support these ideas through their citing of the valuable medicinal properties these trees contain. Reverence for these specific trees takes place against the backdrop of what is perhaps a three thousand year, or older, tradition of Hindu nature worship. Tantrism in particular is known for its philosophical stance recognizing the natural or material world as a manifestation of the divine. Therefore it seems perfectly congruent that a contemporary Tantric guru like Sarkar would carry this belief forward into the twenty-first century in several concrete ways.

He did this in the first instance by having an ecological program and asserting that “the purity of the Earth should never be neglected.” Sarkar warned that “if the noumenal cause of disease is not found, and if the degree of pollution continues to increase at the same speed as today, a day is sure
to come when the polluted earth, water and air will be the cause of the collective death of humanity.” He wrote about microvita’s indirect relationship to pollution by claiming that their positive influences control the detrimental attitudes which are ultimately responsible for pollution.

Sarkar recognised the multi-faceted value of a specific group of trees he called the pañcavaṭi. These trees appear to be antimicrobial or antiviral and, as such, their use could contribute to sustainable development by making it unnecessary to use fossil fuel energy to produce chemicals that counteract undesirable organisms. Not to mention the fact that planting trees like the banyan near river banks would prevent soil erosion. Sarkar relied more on visionary science than on the sacredness of nature in the Hindu tradition when he asserted that the spiritual value of the pañcavaṭi would eventually be proven through scientific research on microvita. Finally, Sarkar encouraged extensive scientific, as well as bodily-based spiritual research, into the microscopic and subtle living beings that he asserted play an important part in the functioning of the universe. He suggested that the material aspect of research into positive microvita should start with “bio-fertilisers.”

Sarkar’s re-enchantment, or continued enchantment, and ultimate understanding of nature relied equally on science and spiritual practices. He wanted humanity to understand microvita and utilize the capacities of these life forms for the well-being of everyone.