

**BIOREGIONALISM AND BIODIVERSITY: AN ECOCRITICAL JOURNEY
THROUGH BIBHUTIBHUSHAN BANDYOPADHYAY'S
PATHER PANCHALI, ICHAMATI AND ARANYAK**

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Abstract:

Place and people are integrally related; the people of a place must consciously live in the area they live in. The biogeographical condition of the place must be taken into account in their daily life; they should sustainably live in the place. The bioregionalists want to spread the consciousness of the bioregion among the people so that the people are acquainted with the ecological features of the place and can maintain a sustainable lifestyle. The recognition of biodiversity is a part of the bioregional understanding; bioregionally conscious writers like Bibhutibhushan Bandyopadhyay have captured the biological diversity of the locales in his novels; these novels would help in the process of narrative and actual reinhabitation.

Keywords: *Bioregionalism, biodiversity, reinhabitation, literary bioregion, place consciousness.*

Bioregionalism as an environmental movement gathered strength in the 1970s in the North America to address the issues that surfaced with the recognition of rapid ecological degradation. Bioregionalists understood that each biogeographical regions bear some distinct characteristics of its own- its topology and climate, soil and agriculture, flora and fauna; and the people of a biogeographical region have gradually adjusted with the place through centuries of place conscious living and developed cultural practices accordingly. These geoculturally specific places are called bioregions. Robert L. Thayer Jr., a bioregional thinker and practitioner, in his book *Life Place: Bioregional Thought and Practice* defines bioregion as follows:

A bioregion is literally and etymologically a “life-place” a unique region definable by natural (rather than political) boundaries with a geographic, climatic, hydrological, and ecological character capable of supporting unique human and nonhuman living communities. Bioregions can be variously defined by the geography of watersheds, similar plant and animal ecosystems, and related identifiable landforms (e.g., particular mountain ranges, prairies, or costal zones) and by the unique human cultures that grow from natural limits and potentials of the region (3).

Bioregions are not confined in a fixed territory; as it is seen that biogeographical changes are gradual rather than abrupt there cannot be a border line- and there must be some transitional places between two bioregions; moreover the places within a bioregion with lesser variations in characteristics may be further divided into subbioregions. Bioregions are not simply determined by what is observed as physical features but it takes into account what is embedded in the psyche of the people of the place-experiences gathered from the environment. Two leaders who guided the bioregional movement, Peter Berg and Raymond Dasmann, in the article “Reinhabiting California” have captured the essential characteristics of a bioregion by combining the physical and psychological aspects of a bioregion to indicate the true essence of it as they define bioregion as a “geographical terrain and a terrain of consciousness (36).” Bioregionalists demand various environmental measures at a local scale; they emphasize that the policies in the environmental sectors must be made in accordance with the specificity of a place; they also propose

various strategies to address the issues at a local scale keeping in mind its ecological nuances. What they expect from the inhabitants of a place is a conscious living-dwelling with an awareness of the ecocultural features of the place they are living in. Writing of place conscious poems, fictions and nonfictions and reading, interpreting and understanding of place conscious texts are considered integral parts of bioregional activity as these build the consciousness necessary for the preservation and restoration of bioregional features.

The act of restoration of the features of a place is known as reinhabitation; this is important particularly for those places which have undergone unsustainable changes. Until preservation and restoration of biodiversity of a place is maintained with utmost care the place would not be able to retain its bioregional feature; sustainable living is not possible when ecological degradation remains unchecked. E. O. Wilson's article "The Current State of Biological Diversity" published in the seminal 1988 book on the issues related to biological diversity entitled *Biodiversity* has pointed out the necessity of an immediate action:

Biological diversity must be treated more seriously as a global resource, to be indexed, used, and above all preserved. Three circumstances conspire to give this matter an unprecedented urgency. First, exploding human populations are degrading the environment at an accelerating rate, especially in tropical countries. Second, science is discovering new uses for biological diversity in ways that can relieve both human suffering and environmental destruction. Third, much of the diversity is being irreversibly lost through extinction caused by the destruction of natural habitats, again especially in the tropics. Overall, we are locked into a race. We must hurry to acquire the knowledge on which a wise policy of conservation and development can be based for centuries to come (3).

What Wilson has proposed can be achieved when the global scale policies are implemented at a local level; conservation of habitats and ecosystems must be done at a local level; bioregions has emerged as a comprehensive unit for preservation of biodiversity as the demarcation of a bioregion takes biodiversity as an important denominator. The destruction of the biological specificity has accelerated rapidly in the postindustrial epoch; it is necessary to preserve what is there still to be preserved and to retrieve at least some of what has been lost from a particular place but can be brought from other sources. What William R. Jordan III in the article "Ecological Restoration" contained in *Biodiversity* has proposed about restoration matches with the bioregionalists' concept of reinhabitation:

Preservation obviously has a critical role to play in the conservation of diversity. At the same time, however, it is clear that by itself preservation is not an adequate strategy for conserving diversity. At best, preservation can only hold on to what already exists. In a world of change, we need more than that. Ultimately, we need a way not only of saving what we have but also of putting the pieces back together when something has been altered, damaged, or even destroyed (311).

In spite of the scientific knowledge of the necessity of preservation of biological diversity the rapid loss of species is a reality; the information the people get about these does not propel them towards positive actions of considerable dimension. Though the observation of Doug Aberley in "Interpreting Bioregionalism", "Widespread social and ecological crises exist; without fundamental change preservation of biodiversity, including survival of the human species, is in doubt (37)", would not seem new to many, few care to follow bioregional practices. The bioregionalists, like the thinkers of ecopsychology, link it with the lack of sensibility towards the place they live in; until the people of a place starts a conscious and sustainable living in a place the condition would not change in near future. The bioregionalists, in some bioregions, have been able to grow the level of place consciousness. Consciousness about the biodiversity of a place is an important part of the overall understanding of a

bioregion. Bibhutibhushan Bandyopadhyay (1894-1950), a renowned Bengali author and a keen observer of nature, has consciously portrayed the landscape and the animal world of the locales in his novels; *Pather Panchali* (1929), *Ichamati* (1950) and *Aranyak* (1938) are full of such details that ignite the bioregional imagination of the readers. The biogeographic region captured in *Pather Panchali* and *Ichamati* is Bengal delta or Ganges delta and in *Aranyak* it is a transitional land between the Middle Ganges Plain and Chhotnagpur plateau. Since these novels are autobiographical the portrayal of the plant life and the animal world can be taken to imagine a literary bioregion; narrative bioregion can be instrumental in the bioregional practice of reinhabitation. Bibhutibhushan Bandyopadhyay's diaries such as *Smritir Rekha* (1941), *Trinankur* (1942), *Urmimukhar* (1944), *Bone Pahare* (1945) would attest what has been written in the novels; from all these formation of a literary bioregion can materialize-the biodiversity of the literary bioregions may be explored for a detailed understanding of the nature of the literary bioregion.

The forest canopy in the locales of *Aranyak* is an indicator that the place would be extremely rich in biodiversity; the protagonist Satyacharan gradually explores the diverse world in the forests of Lobtulia and Nara-baihar. Satyacharan who hails from the Bengal delta biogeographic region notices that he has entered a different terrain of uneven land of red soil; initially the loneliness of the place seems unbearable to him; gradually he discovers the natural beauty of the land and falls in love with the mysterious enchantments of the forests. But Satyacharan cannot enjoy the beauty of the place for long; he has been employed in the estate of the zamindar with a duty to clear away the forestland and grow human settlements for the interest of revenue generation. Satyacharan continues the work of settlements as his duty not without the pangs of conscience that he has been destroying the pristine forests for material gains. Satyacharan documents the experiences in the forests; the natural surroundings and the life of the people; his documentation includes the act of ecocide too-the rapid loss of biodiversity. From his description of the floral and faunal world in the forests an estimate of the biodiversity of the literary bioregion of the Chhotnagpur plateau may be initiated. Satyacharan repeatedly speaks of the diverse nature of the forests where he lives in:

Between my katcheri and Lobtulia, there lay a ridge of red soil almost eight miles long: it was called Phulkia-baihar, and was thickly forested with a vast variety of trees and vegetation. In some places, the forest was so dense that horse and rider struck repeatedly against branches and twigs (17).

The forests in these parts were pristine, the land was virgin and the people of the forests did not march after so called development and progress; but the British colonizers pressed for the generation of revenue and the zamindars rapidly converted the lands to agrarian settlement across the whole of India. The forests were eliminated for the development of a consumerist society, a unified pattern of development choking the voices of the natives. *Aranyak* captures in small detail the microcosm of the macrocosmic destruction of forests and wild animals in the country. Bibhutibhushan Bandyopadhyay could visualize the condition of the aboriginals like the king Dobru Panna who would soon lose their habitat and his future generations would become labourers in the mines.

The trees of the forests were of the kind that is not common in the plains of Bengal; the variety of the vegetation has been mentioned time and again in the novel; these descriptions provide rough sketches of the floral diversity of the bioregion: "Now, small hills appear beside us, the path winds through them: a golgoli tree, bare of leaves, stands on the hilltop, forests of the blood-red palash in other places" (99). The variety of the plant life often attracts him to explore through the forests of kash, jhau, piyal, kend and he finds that many of the trees and creepers are not known to him; he enjoys the beauty of the "obscure anonymous flower of a wild and thorny plant (86)". The very symbol of exuberant spring in the forests is not the common flowers of spring that he used to see in the plains of Bengal.

While describing the floral world in the forests Satyacharan does not forget to portray the faunal life in the forests around him; the forests were habitats of a large variety of reptiles, avian species and

mammals. In the summer when water scarcity becomes prominent, one day he is amazed to see the variety of life assembling in the Saraswati kundi-the only source of water in the vicinity. He notices that in the time of the natural calamity the predator does not pounce upon its target though it was standing close to the carnivorous animal; he however does not identify that the buffaloes are wild-only when he returns to the katcheri he is informed that those are wild buffaloes of ferocious attributes. The following passage partially records what he notices at the place near Saraswati kundi:

When I crossed the jungle and went to the edge of the little pond (called a kundi in the local Hindi) an extraordinary sight met my eyes. On one side of the kundi were eight or nine snakes of varying length and, on the other, three huge buffaloes, drinking water. The snakes were all of the poisonous kind-kraits, and a species of banded kraits, commonly found in these parts (36).

The way Bibhutibhushan Bandyopadhyay presents the situation would ignite the imagination of any lover of nature; he writes a novel and he does it with mastery; he documents the diverse world of the floral and faunal species in the novel with the keen eye of an observer of biologist. He goes on fusing the floral and faunal life in his novel with the course of the experiences gathered by Satyacharan:

News came trickling in that someone had spotted a tiger drinking at the kundi in the jungle; other people had seen wild buffaloes drinking, and herds of deer, not to mention herds of neelgai and wild boars-the last two creatures were to be found in abundance in the jungle. (36)

Throughout the novels the description of the faunal species continues to be integrated with plot of the story; the description of the places seems to a portrayal of the bioregional pattern of the region. The areas around Dobru Panna's hamlet are still full of many wild animals of various sizes; the natives of the land still manage to collect some porcupines, wild fowls or harials as it can be observed from Jogru Panna's description.

In the novel the description of biodiversity has been an integral part of the plot; the more one wants to gather references one would find examples to build a literary bioregion. Variety of the avian species has been portrayed in the throughout the novel; the soundscape produced by these winged species cannot remain unnoticed. One aspect of the way of presentation of the diversity cannot be ignored by any careful and ecologically conscious reader of the text that the description of the floral life has not been casual, not even ornamental; it has been documented with an eye of an ecologist. Only an ornithologist would probably notice the variety of avian species that has been portrayed here: "The number of birds around the kundi was extraordinarily high, possibly because they had such a choice of wild fruits and the tall trees made nesting easier (103-104)". He not only puts the names of the birds or the sonority of the sound they produce but also situate the species in the habitat and analyses the specificity of the habitat that invites such bird population. The destruction of the forests in the area destroyed the habitat of the birds; Satyacharan grieves over the fact that he is responsible for the rampage of the habitat; he finally assures himself that the birds have found their new habitat in the forests around the Mahalikharooop. He not only laments for the destruction of habitat for the avian species but for the all other species that remained in the forests for generations; the aboriginal people of the place who has lived in the forest for centuries without mutilation of the land. Satyacharan laments that the settlers are destroying the diverse life forms without hesitation; he comments that in other countries they would have preserved such national resources; he is astonished at the greed of the colonizers and the zamindars who never cared for natural resources and destroyed those for faster generation of revenue. Satyacharan cannot bear the pain of the conversion of the forest tracts to agrarian settlements and repeatedly blames himself for doing so; he is not assured whether the god of the forests would ever forgive him: "I bowed from afar to Mahalikharooop and Mohanpura Forest lying in the distance. You primeval gods of the forest, forgive me."

It was I who in the last seven years or so had the forests cleared and set up in their stead this joyous settlement, bustling with activity and filled with crops (254).

Ichamati and Pather Panchali is set in the deltaic region of the Bengal plains; more particularly the author has chosen the middle portion of the Ganges delta as the locales of his novels; in Ichamati the writer specifies the area of his locales as the basin of Ichamati in then Nadia and Jessore of undivided Bengal; the place names in Pather Panchali also confirms that the locales are situated within the same periphery. The biodiversity of the rural agrarian settlements in the Bengal delta can be imagined from the portrayal of nature in the novels. Ichamati begins with a detailed narration of the physiography of the locales-its floral and faunal diversity. The lush green rural areas of the places in the pre-urbanized stages can be imagined from the portrayal:

If you go to Marighata or Bajitpur by boat upto Chanduriar Ghat- you will be able to see on two sides palte mather trees' red flowers, the bush of banyo buro coming out of water, the floating leaves of topa pana, wild titpalla creepers, exhibition of yellow flowers, somewhere up above the bank in the shade created by banyan or asatha tree, uluti-bachra-bainchi bush, bamboo grove, the hole made by the river bird gangshalik, delicate creepers (3).

While reading Ichamati the readers can imagine the floral and faunal variety of the Ganges delta in the middle of nineteenth century. The agricultural diversity and rotation of crops can also be noticed. It cannot be ignored that the widespread plantation of indigo in the Bengal delta, particularly in Nadia and Jessore, heavily influenced the agricultural pattern in the areas and the condition of agricultural diversity decreased day by day. The monopoly of the indigo planters in the region made the agricultural pattern of the areas unsustainable. The references of the numbers of the fruit trees in the areas can be taken as an indicator of sustainable social forestation; as these places lacked long tracts of forests these orchards can be seen as a steady patches of green. The descriptions of the mango groves in Pather Panchali also indicate that these places were full of such patches of green. Moreover the untended open places in the fertile land created many patches of soothing green; in Pather Panchali these places are seen as a habitat of various reptiles, birds and small mammals. Despite of its lack of forests these wild vegetations continued to increase green quotient of the land:

All that the eye could see from the window was a roof of undergrowth, billowing like the waves of a green ocean; pierced here and there by trees, festooned with innumerable creepers, and ancient bamboos, whose spikes now heavy with age drooped over the shondali and bonchalta trees; but beneath it all the bosom of the earth was black and there the wagtail danced (168).

Opu and Durga in Pather Panchali are partially nurtured by this green friend around them; the wild vegetation provides them with playthings and supplies wild berries to sweeten their taste buds. Though it is not easy for the children to reach to the dishes of fruits spread out in nature they often manages to do so:

When the children got to the lake they saw a lot of water fruit, but none of it was down near the water; it was mostly very high up (94).

The nature around their home becomes the natural school for Opu and Durga; they gradually understand the blessing of natural world around them. The children of the poverty stricken family find a kind of respite in the green vegetations and open fields. Opu learns about the diversity of the floral and faunal world while he roams about in the bushes and jungles in the areas near the river. His amazement at the sight of a hare on the way to the field can be cited as the type of education he gets from the nature around him:

A hare! a real live hare that actually jumps up before your very eyes and then runs away! It was not a picture, or even a glass doll, but a real live hare with its ears standing up. And it lives in clumps of grass and among bushes. (54)

The description of the flora and fauna are well integrated in the development of the story in Pather Panchali

and Ichamati. Examples of the presentation of biodiversity can be cited amply from these novels; these would definitely guide the readers to build a literary bioregional map of the places.

Use of bioregional plants in the ethnic practice of medicine is considered to be a direct impact of the biodiversity on the people of the places. In Ichamati Ramkanai kabiraj, a traditional practitioner of the ayurvedic traditions collects parts of wild vegetations of the area to heal various diseases. Raju Parey in Aranyak is also seen to use various parts of plants for the treatment of the patients in the hamlet of Shuarmari. In Pather Panchali, the ancestors of the protagonist Opu is known to be the practitioners of the traditional system of medicines.

His round-shaped clay utensil in which he boiled his herbs was thrown away- in that utensil in a dry condition the ground sondali flower, punaarnaba, the halhalisak, khetpapra the creepers nalimul were there. (112)

The description above is from Ichamati; the traditional medical practitioners like Ramkanai kabiraj depends wholly on the biological diversity of the places the live in.

An ecologically conscious study of these novels would unveil that these novels have been written with strong sense of attachment to the place. All of the protagonists in the novels show their attachment of the place; whether the employer in the forests or the children in the village or a man devoted to family they all are closely associated with the place they live in; they enjoy its fresh air, they listen to the biophony of the world around them; they situate themselves within the diverse biotic and abiotic elements around them. Any bioregional effort of reinhabitation demands a deep understanding of the place and its ecology; its floral and faunal diversity. From the reading of the novels Ichamati and Pather Panchali the readers are informed that in the deltaic region there were the birds like shakun (vulture) and babui (village weaver); there were the mammals like hare-the places have lost or seen rapid decrease of the animals. Aranyak presents the process of elimination of the diverse species of plants and animals from the forests of Lobtulia and Nara-baihar. The river Ichamati in the specified area in the novels has lost its flow; naturally it has been a great loss for riverine biodiversity. Bioregionalism being not only a critical practice but also a conscious activity would demand preservation of the biodiversity of the land and at least partial restoration of the biodiversity for the practice of reinhabitation in the area. The book *The Bioregional Imagination: Literature, Ecology, and Place* edited by Tom Lynch, Cheryl Glotfelty, and Karla Armbruster may always be consulted to understand how creative and critical literature can operate as an active instrument in bioregional planning and conscious bioregional living.

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