

Introduction

Ecocriticism

Since its inception in the early 1990s, ecocriticism as a fertile, distinct and new field of study has captured scholarly attention globally. In 1869, Ernst Haeckel, the German zoologist, first coined the term “ecology” (Glotfelty vii). The word “ecocriticism” was first coined by William Rueckert (1978) in his ground-breaking essay *Literature and Ecology: An Experiment in Ecocriticism*. He states that ecocriticism is the application of ecology and ecological concepts to the study of literature:

Specifically, I am going to experiment with the application of ecology and ecological concepts to the study of literature, because ecology (as a science, as a discipline, as the basis for a human vision) has the greatest relevance to the present and future of the world we all live in of anything that I have studied in recent years....I could say that I am going to try to discover something about the ecology of literature, or try to develop an ecological poetics by applying ecological concepts to the reading, teaching, and writing about literature.

‘Eco’ and ‘critic’, both words are derived from the Greek *oikos*, which stands for household and *kritis* for the judge (*oikos+kritis that means the ‘house judge’*). *Oikos* means nature, “our widest home”, and *kritos*, William Howarth explains in *Ecocriticism in Context* (2000), is “the arbiter of taste who wants the house to be kept in good order, no boots or dishes strewn about to ruin the original décor” (Howarth 163).

The publication of Lawrence Buell's *The Environmental Imagination* (1995) and Cheryll Glotfelty's and Harold Fromm's collection, *The Ecocriticism Reader* (1996), gave the scholars a foundation and significant focus on the literature and environment connections. Glotfelty defines ecocriticism as the study of relationships between the literature and the physical environment and states that ecocriticism takes an earth-centered approach (Glotfelty xviii). According to Scott Slovic, ecocriticism as an academic movement contains plural perspectives. He believes that there "is no single, dominant world-view guiding ecocritical practice – no single strategy at work from example to example of ecocritical writing or teaching" (Slovic 159). Slovic states that ecocritical practices worldwide are continually revised and redefined by thousands of literary scholars. Hence, they cannot be categorized under any single school of thought (Sarveswaran 11). Ursula K Heise, in "Greening English", opines that ecocriticism grows from a small field of critical study to "a highly diverse field encompassing a wide variety of genres and authors in the United States and abroad". Ecocriticism encompasses the full spectrum of critical or cultural theories, praxis, and methodologies, such as critical race theory, queer studies, and cognitive science, from Marxism and poststructuralism to feminism, etc. (290). Lawrence Buell in *The Future of Environmental Criticism* (2005) also points out the interdisciplinary approaches of ecocriticism as a "mind-expanding vertiginous array of cross-disciplinary conversations with life scientists, climatologists, public policy specialists, geographers, cultural anthropologists, landscape architects, environmental lawyers, even applied mathematicians and environmental engineers" (6). Thus, the study of literature and the environment incorporates a multidisciplinary perspective as ecocriticism intersects with various other disciplines. Lawrence Buell, in his,

Environmental Imagination: Thoreau, Nature Writing and the Formation of American Culture (1995), outlines the basic tenets of ecocritical works:

1. The nonhuman environment is present not merely as a framing device but as a presence that begins to suggest that human history is implicated in natural history.
2. Human interest is not understood to be the only legitimate interest.
3. Human accountability to the environment is part of the text's ethical orientation.
4. Some sense of the environment as a process rather than as a constant or a given is at least implicit in the text. (Buell 7-8).

Ecocriticism addresses issues related to the environment or environmental crises in literature. It brings the readers and scholars into conversations, contesting their attitudes and interactions with the environment at a planetary level. The persistent global 'environmental crises' in the present century have posed exciting challenges to the new community of scholars of ecocriticism, creating a sense of connectedness and concern about environmental issues. Serpil Opperman comments that ecocriticism launches a call for literary scholars to connect theoretically and practically to the present ecological crises (Opperman 29). In this context, it is pertinent to mention Glen. A. Love (1990). Love explores that the function of ecocriticism is to "redirect human consciousness to a full consideration of its place in a threatened natural world" and to usher an environmental awareness that initiates "integration of human with natural cycles of life" (Love 211).

Barry Commoner's four laws of ecology lay the foundation of ecocritical thoughts. They foreground the integration of humans with natural cycles of life and interconnection among all species on the Earth. Commoner, in his work, *The Closing*

Circle: Nature, Man, and Technology (1971), states the four laws: (i) “Everything is connected to everything else; (ii) Everything must go somewhere; (iii) Nature knows best; and (iv) There is no such a thing as free lunch” (33).

Paul Shepard, an American environmentalist, engages the readers to rethink their connection and dependency on the natural world. His works epitomize his belief that the evolution of environmental thinking depends on the human/nature relationship. His ground-breaking works are *Man in the Landscape: An Historic View of the Esthetics of Nature* (1967), *The Tender Carnivore and the Sacred Game* (1973), *Thinking Animals: Animals and the Development of Human Intelligence* (1978), and *Nature and Madness* (1982), etc.

Aldo Leopold and John Muir’s philosophical writings have inspired environmental educators, scholars, and general readers about the environment. Aldo Leopold is one of the pioneers of modern environmental thinking. His significant contribution to ecological thought is “The Land Ethic”, the final chapter of his most famous work, *A Sand County Almanac* (1949). John Muir was the co-founder of the Sierra Club and is known as “John of the Mountains” and “Father of National Parks” (McGuckin 2015). His writings promoted wilderness conservation and preservation and helped transform the Yosemite area into a national park.

Greg Garrard, in his *Ecocriticism: The New Critical Idiom* (2004), discusses various ecocritical positions, such as environmentalism, cornucopianism, social ecology, deep ecology, ecofeminism, and eco-Marxism, etc., in his *Ecocriticism: The New Critical Idiom* (2004). Garrard aligns these ecocritical positions with seven

central themes: pollution, pastoral, wilderness, apocalypse, dwelling, animals, and the Earth.

Environmental Positions

Deep Ecology

Arne Naess, the Norwegian philosopher, coined the phrase “deep ecology” in the 1970s and introduced it to environmental literature. Naess perceived two separate forms of environmentalism: the “long-range deep ecology movement” and the “shallow ecology movement.” The word “deep” in part referred to the level of questioning of our purposes and values when arguing in environmental conflicts. The “deep” movement involves deep examination, right down to fundamental root causes. The ‘short-term, shallow approach’ stops before the ultimate fundamental change level and often promotes technological fixes (recycling, increased automotive efficiency, and export-driven monocultural organic agriculture) based on the same consumption-oriented values and industrial economy methods. The ‘long-range deep approach’ involves redesigning our whole systems based on values and methods that truly preserve the ecological and cultural diversity of natural systems.

(<http://www.deepecology.org/>).

Arne Naess prescribed eight “Platform Principles of Deep Ecology” (Arne Naess and George Sessions 1984):

1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: inherent worth, intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.

2. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
 3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.
 4. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
 5. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
 6. Policies must therefore be changed. The changes in policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
 7. The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
 8. Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes.
- (<http://www.deepecology.org/>).

Ecofeminism

The French feminist Francoise d'Eaubonne coined the term 'ecofeminism' ('*eco-féminisme*') in her foundational text *Le Féminisme ou la Mort (Feminism or Death)* (1974). Ecofeminism aims to share the terrains of environmentalism and feminism. Francoise d'Eaubonne introduced ecofeminism as an umbrella term to emphasize the historical association between women and nature's denigration and subjugation by patriarchal structures and worldviews. Ecofeminism mirrors the resistance to this domination as "a mode of inter-human and human-earth relations" (Eaton 327). Ecofeminists like Susan Griffin, Karren J. Warren, Val Plumwood, and Carolyn Merchant, in their works, have centralized the dualism embedded in ecological realities that influence the environmental and social relationships between man/woman and human/nature.

Bioregionalism

The term 'bioregionalism' is said to have been first employed by Peter Berg and Raymond Dasmann in the early 1970s. Berg's bioregional concepts border on sustainability and interdependency and supporting other species. Thus, it refers to the mutual and connected existence of all life forms on Earth, creating sustainable human societies in unison with the natural world and flourishing of all species in a particular region. Bioregional theorist Jim Dodge explains that the term "bioregionalism" is formed from Greek *bios* (life) and French *region* (itself from Latin *regia* (territory)); thus, the meaning is "life territory" or "place of life" (qtd in Taylor 67). As a philosophy, bioregionalism urges to gain an intimate and localized knowledge of dwelling concerning place, biotic and abiotic community, and culture. It engages the inhabitants with the land as an allegiance that entails a commitment to

bioregion as personal habitat, interdependent human community, and sustainable physical environment in cognizance of the interdependencies between one's particular ecosystem and the wider world (Buell 420). Robert L. Thayer Jr., in his work *Life Place: Bioregional Thought and Practice* (2003), states that 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 coastal zones) and by the unique human cultures that grow from natural limits and potentials of the region. Most importantly, the bioregion is emerging as the most logical locus and scale for a sustainable, regenerative community to take root and to take place (Thayer 3).

Four Waves of Ecocriticism

Lawrence Buell, in his *The Emergence of Environmental Criticism, The Future of Environmental Criticism* (2005), marks the evolution of the first and second waves of ecocriticism. Scott Slovic (Slovic 2010) further engages extensively with the third and fourth waves of ecocriticism. The wave metaphor is borrowed from the idea of the waves of feminism. The focus of the first wave (the 1980s to present) is on non-fiction (“nature writing”), nonhuman nature or wilderness, American and British literature (environmental), and on “Discursive” ecofeminism. According to Buell, first-wave ecocriticism attached special value to place-

attachment at a local or regional scale, mainly modeled in the bioregional thinking of environmental writers and critics as Wendell Berry and Gary Snyder (Bioregionalism). The second wave (the mid-1990s to the present) shifted the focus to multiple genres, non-fiction, environmental justice, and green cultural studies on local literature worldwide. Third-wave ecocriticism (2000 to present) marks an evolution related to place-attachment from local to global. Ursula K. Heise introduces the idea of eco-cosmopolitanism in her work “Deterritorialization and Eco-Cosmopolitanism” in the *Sense of Place and Sense of Planet* (2008). The third wave also focuses on multiple gendered approaches (eco-masculinism, green queer theory), material ecofeminism, and animality (animal subjectivity and agency, justice for nonhuman species, etc.) The fourth wave (2008 to present) focuses on material ecocriticism, trans-corporeality, human-nature co-extensiveness, the environmentalism of the poor, and applied ecocriticism, etc.

Literature Review

Scholars of Environmental Humanities consider Rachel Carson’s *Silent Spring* (1962) as the catalyst which marks the beginning of environmental writing. Environmental Humanities scholars trace the importance of environmental writing, in American culture in many literary and non-literary works of the late-18th and early-19th century. Non-literary works, like, Michel-Guillame-Jean de Crèvecoeur’s *Letters from an American Farmer* (1782) and Thomas Jefferson’s *Notes on the State of Virginia* (1785), also give glimpses into the values of Colonial America on natural environments. Then American Transcendentalists, emerging in the 1820s and 1830s, wrote how nature influenced the nation’s spiritual and intellectual growth. William

Bartram was a writer, naturalist, and an undaunted wilderness explorer of the 18th century. His contribution to travel and adventure writing in early American literature is, *Travels Through North and South Carolina, Georgia, East and West Florida* (1791). The classic book documents his journeys from 1773 to 1776. His study of Native American cultures served as the seminal written source for studying Native American culture (the Creek, Seminole, Cherokee, and Choctaw Indians) in the American literature and environmental writings.

James Fenimore Cooper and his Leatherstocking novels, published between 1823 and 1841, preceded the works of the Transcendentalists. These are significant contributions to the frontier in American literature. His ‘Leatherstocking Novels’ explore American natural surroundings in the formative moments of settlements and the relationship between man and the land. These are *The Pioneers* (1823), *The Last of the Mohicans* (1826), *The Prairie* (1827), *The Pathfinder* (1840), and *The Deerslayer* (1841).

The transcendental movement started under the stewardship of the nineteenth-century American writers, like Ralph Waldo Emerson, Margaret Fuller, and Henry David Thoreau. Emerson’s first short book, *Nature* (1836), is a reflective essay on the natural world's deep impressions upon him. In this work, Emerson talks about the mystical union between humans and nature and urges his readers to foster such a relationship with the environment. Fuller’s first book, *Summer on the Lake* (1843), is a journal of her encounter with the American landscape. Thoreau’s *Walden* (1854), narrates his two-year (1845-47) experiment of his exile, on the shores of

Walden Pond. The book centers on shunning modern society and seeking to renew the bond with nature.

The second decade of the twentieth century witnessed the rise in environmental scholarship with the seminal works of John Muir, Aldo Leopold, and Edward Abbey. John Muir's writings about Yosemite Valley and Hetch Hetchy Valley in the Sierra Nevada Mountains depict his efforts to conserve the land's pristine natural richness. Aldo Leopold's *Sand County Almanac* (1949) and Edward Abbey's *Desert Solitaire: A Season in the Wilderness* (1968) are cornerstones of American environmental writing. The 1970s witnessed a host of environmental writers, such as Anne Dillard's *Pilgrim at Tinker Creek* (1974), Gary Snyder's *Turtle Island* (1974), Annette Kolodny's *The Lay of the Land: Metaphor as Experience and History in American Life and Letters* (1975), Peter Matthiessen's *The Snow Leopard* (1978), Ursula Le Guin's eco-fantasy, *The Earthsea Trilogy* (published in 1968, 1971, and 1972) and Leslie Marmon Silko's *Ceremony* (1977). In the 1990s, a notable community of ecocritical writers from the United States and other parts of the world significantly contributed to the corpus of environmental literature. They experimented with various forms of writing like fiction, short story, non-fiction, travel writing, creative non-fiction, natural history writings, poetry, and drama. Some of the most significant works in this corpus include Rick Bass's *Fiber* (1998), David Rains Wallace's *The Klamath Knot* (1984), Terry Tempest Williams's *Refuge: An Unnatural History of Family and Place* (1991). Terrell Dixon, in "The literature of toxicity from Rachel Carson to Ana Castillo" (1996), has surveyed the growth of environmental writings in a similar vein to Rachel Carson's *Silent Spring* (1962). Eminent writers like Don DeLillo (1985), Terry Tempest Williams

(1991), Jane Smiley (1991), Rudolfo Anaya (1993), and Ana Castillo (1993) have contributed to 'nature-oriented' (Murphy, 2016) literary texts.

Anthropocene Fiction

In the present decade, Anthropocene has emerged as one of the most significant and dominant themes in literature and literary studies. Ecocritical scholarship shows a substantial rise in fiction (Climate Change fiction or cli-fi), theatre productions, and ecopoetry on Anthropocene. These distinct genres of Anthropocene literature engage the readers and audiences to the planet's present state of environmental degradation. Fictional works of many notable writers, like Margaret Atwood's *Oryx and Crake* (2003) and *The Year of the Flood* (2009), Cormac McCarthy's *The Road* (2006), T.C Boyle *A Friend of the Earth* (2000), Maggie Gee's *The Ice People* (1998) and *The Flood* (2004), Doris Lessing's *Mara and Dann* (1999) and *The Story of General Dann and Mara's Daughter, Griot and the Snow Dog* (2005), Ian McEwan's *Solar* (2010), Will Self's *The Book of Dave* (2006), Indra Sinha's *Animal's People* (2008), Amitav Ghosh's *The Great Derangement: Climate Change and the Unthinkable* (2016), *The Hungry Tide* (2004), *Gun Island* (2019), and Barbara Kingsolver's *Flight Behaviour* (2012), foreground interactions between Anthropocene and literature. A group of science fiction writers have made a capital contribution to the corpus of Anthropocene fiction: Paolo Bacigalupi's *The Windup Girl* (2011), Piers Anthony's *Xanth Books*, Octavia Butler's *Parable of Sower* (1993), Ursula Le Guin's *The Lathe of heaven* (1971), Kim Stanley Robinson's 'Science in the Capital' trilogy (2004, 2005, 2007), and Bruce Sterling's *The Caryatids* (2009) and *Heavy Weather* (1994).

Research Focus: Barbara Kingsolver

Barbara Kingsolver belongs to the group of American writers who have changed and broadened our perspectives about ecological interconnectedness and living in harmony with nature. Kingsolver, a native of southwestern Virginia, was born in 1955 and grew up in Kentucky. As a scientist and a novelist, Kingsolver, in her writings, explores a very intimate “human” engagement with the “nonhuman” nature and also engages the readers with current environmental movements. Her works inform readers that they are neither a separate nor dominant part of an increasingly fragile ecosystem. Kingsolver’s works synthesise the scientist and the poet, similar to Rachel Carson’s *Silent Spring* (1967), while addressing the critical environmental problems of the present Anthropocene era. She has sixteen books to her credit. These are:

Fiction

1. *The Bean Trees* (1988)
2. *Animal Dreams* (1990)
3. *Pigs in Heaven* (1993).
4. *The Poisonwood Bible* (1998).
5. *Prodigal Summer* (2000).
6. *The Lacuna* (2009).
7. *Flight Behavior* (2012).
8. *Unsheltered* (2018).

Non-Fiction

1. *Holding the Line: Women in the Great Arizona Mine Strike* (1989).

2. *High Tide in Tucson* (1995).
3. *Small Wonder* (2002).
4. *Last Stand: America's Virgin Lands, with photographer Annie Griffiths Belt* (2002).
5. *Animal, Vegetable, Miracle: A Year of Food Life* (2007).

Poetry and Short Stories

1. *Homeland and Other Stories* (1989).
2. *Another America* (1992).
3. *How to Fly (In Ten Thousand Easy Lessons)* (2020).

Barbara Kingsolver is named one of the most influential writers of the 20th Century by Writers Digest. In 2000 she received the National Humanities Medal, the United States' highest honour for service through the arts. In 2011, Kingsolver received the Dayton Literary Peace Prize for the body of her work. She is the recipient of Britain's prestigious Orange Prize for Fiction in 2010 for her fiction *The Lacuna*. She has also received the James Beard award and numerous other prizes for *Animal, Vegetable, Miracle*. She has established the Bellwether Prize for Fiction, the nation's largest prize for an unpublished first novel, which since 1998 has helped develop the careers of more than a half dozen new literary voices. The award has become the PEN / Bellwether Prize for Socially Engaged Fiction through a recent agreement (<http://www.kingsolver.com/biography>).

Barbara Kingsolver claims to bring environmental awareness to the reader in both her fiction and non-fiction. In her written communication (appendix), Kingsolver has emphasised the potential of her novels and non-fiction to increase the readers' awareness of the environmental crises. Readers engage themselves deeply with the

fictional representation of real-world problems. Her writings explore themes ranging from nature appreciation, preservation or conservation, connection to land and place, and the interrelation between family and community in a given ecosystem. My preliminary research shows that there is already an existing body of ecocritical study of Kingsolver's works.

Pricilla Leder's work is a collection of critical essays on Kingsolver, mostly focused on the environmental engagement in her non-fiction and one fiction *Prodigal Summer*. Leder, in her work *Seeds of Change* (2010), states that "Amid this impressive variety, two basic themes emerge: an appreciation of the natural world that not only celebrates its nurturing beauty but also explores it as a biological system, and an appreciation of human diversity that considers how people of different backgrounds and perspectives can learn from each other." (Leder 1). Mary Jean Demarr, in her *Barbara Kingsolver: A Critical Companion* (1999), studies plot development, character development, and theme in Kingsolver's fictional works. Linda Wagner Martin's *Barbara Kingsolver's World: Nature, Art, and the 21st Century* (2014) studies Kingsolver's works from various strands of ecological criticism such as ecocriticism, ecofeminism, and ecopoetics, etc. Linda Martin Wagner's other book *Barbara Kingsolver* (2004), is a biographical work and a critical commentary on her published works. Adam Trexler's *Anthropocene Fictions: The Novel in a Time of Climate Change* (2015) presents a reading of Kingsolver's novel *Flight Behaviour* as a climate fiction.

According to the Dissertation Abstract International (DAI), and theses accessed through Dissertation ProQuest reservoir, there are forty international dissertations (both at the masters and the doctoral level) on Barbara Kingsolver. The

themes and perspectives examined in these studies are ecofeminist-posthumanist studies, politics, womanhood, and motherhood in southern Appalachian literature, intersectionality and transnationality, postcolonial studies, and Kingsolver's works as southern women's fiction, etc. Ceri Gorton (2009), in her doctoral thesis *The Things That Attach People*: A Critical Literary Analysis of the Fiction of Barbara Kingsolver, explores how Kingsolver positions herself variously as an environmentalist, liberal, communitarian, feminist, and agrarian. Through close readings of her fiction, the dissertation unpacks the author's issues-based approach to writing fiction and its effect on her commercial popularity. Brendan T. Hawkins (2015), in his master thesis "Charged with Resistance: An Ecocritical Reading of Barbara Kingsolver's *Prodigal Summer* and *Flight Behaviour*", examines these two novels through an ecofeminist lens. The dissertation explores how the women in these novels understand that human and nonhuman lives and how this realization allows the female characters to move past the dualistic or hegemonic culture they inhabit.

Theda Wrede (2014), in *Barbara Kingsolver's Animal Dreams: Ecofeminist Subversion of Western Myth*, has studied how Kingsolver uses the western myth to affirm an ecofeminist message *Animal Dreams* (1990). Elisabeth Horton-Cook, in her article *Interdependence and Interconnectedness in Barbara Kingsolver's Fiction: Self-Revelations and Thriving Relationships Contingent upon Connection to Nature in The Bean Trees, The Poisonwood Bible, Prodigal Summer, and Flight Behaviour*, has analysed these four fictions of Kingsolver to provide an illuminating picture of humanity's interdependence with the environment. Mary Louisa Cappelli (2017), in "Predator Politics: Coyote Wrenching in Edward Abbey's *Desert Solitaire* and

Barbara Kingsolver's Prodigal Summer”, presents a comparative study of Abbey’s *Desert Solitaire* and Kingsolver’s *Prodigal Summer*. She engages the readers in political discussions of environmental sustainability and to consider viable solutions to preserve the ecological diversity of predators of the natural community. Suzanne W. Jones (2006), in *The Southern Family Farm as Endangered Species: Possibilities for Survival in Barbara Kingsolver's Prodigal Summer*, shows that saving failing family farms and restoring ecosystems depend on the complex interconnections between human and nonhuman worlds, between natives and newcomers, between the local and the global. Peter S. Wenz (2003), in *Leopold's Novel: The Land Ethic in Barbara Kingsolver's Prodigal Summer*, shows how Barbara Kingsolver resonates with Leopold's critical ideas related to the Land Ethic in her novel. Bert Bender (2011), in *Darwin and Ecology in Novels by Jack London and Barbara Kingsolver*, presents how writers have embraced Darwinian biology to produce environmental fiction like *Prodigal Summer* (2000) that addresses many ecological crises that we humans have brought about. Elaine R. Ognibene (2003), in *The Missionary Position: Barbara Kingsolver's "The Poisonwood Bible"*, presents a postcolonial reading of the novel to impress and draws a comparison between a missionary’s attitude and colonial imperialism. Anne Marie Austenfeld (2006), in *The Revelatory Narrative Circle in Barbara Kingsolver's The Poisonwood Bible*, has analysed how the novel departs from traditional social views and familiar literary forms. William F. Purcell (2009), in *Gospel According to Barbara Kingsolver Brother Fowles and St. Francis of Assisi in The Poisonwood Bible*, shows how Kingsolver’s novel raises interesting and vital questions about the nature of Christian spirituality and its relevance to non-Christian and non-Western traditions. Christopher Douglas (2014), in *The Poisonwood Bible's Multicultural Graft: American Literature during the*

Contemporary Christian Resurgence, examines how the fiction is deeply critical of the resurgence and is informed by American multiculturalism. Katherine R. Chandler (2014), in *Poisonwood Persuasion: Rhetorical Roles of Humor in Environmental Literature*, investigates how Kingsolver integrates humour with her environmental agenda. Jeannette E. Riley (2009), in *The Eco-Narrative and the Enthymeme: Form and Engagement in Environmental Writing*, examines the use of enthymeme in literary texts. She studies Barbara Kingsolver's novel *The Poisonwood Bible*, Terry Tempest Williams's memoir *Refuge: An Unnatural History of Family and Place*, and Mary Oliver's poetry collection *American Primitive*. Sheryl Stevenson (2000), in *Trauma and Memory in Kingsolver's Animal Dreams*, examines the text as an illuminating exploration of complex relationships between trauma and memory. Karen L. Kilcup (2009), in *Fresh Leaves: Practicing Environmental Criticism*, studies how writers, such as Kingsolver, Octavia Butler, Wendell Berry, and their precursors, can inform readers about the current environmental crises.

Research Objectives and Questions

The existing literature survey on Kingsolver shows that there is lack of engagement with the themes of Bioregionalism and Eco-cosmopolitanism, Partnership Ethics, Ecocritical Animal Studies, and Anthropocene literature, based on the theoretical development of ecocriticism and the “four” waves of ecocriticism. In my thesis, I attempt to address this gap or lacuna. My contribution within this body of research is to expand current ecocritical scholarship on Kingsolver. Therefore, I have summarized four specific centers of interest or perspectives. Thus, the thesis seeks to study Kingsolver's fiction and non-fiction from the following

theoretical perspective. These are (i) Concept of place: Local to global (bioregionalism and eco-cosmopolitanism), (ii) Ecofeminism (Ecofeminist partnership ethics), (iii) Ecocritical Animal Studies: Interdependence and Interrelations between human and nonhuman species, and (iv) the Anthropocene fiction and non-fiction. The first three themes show the human and nature interdependence and interconnection, and the final perspective on the Anthropocene foregrounds the endangered planet lives (both biota and abiota) when interdependence and interconnection are disrupted because of anthropogenic aggression. This study aims to depict an ecological awareness that integrates various ecosystems and all life forms, and the whole planetary system.

While trying to address these objectives, the dissertation seeks to answer specific significant questions. The questions are:

1. How is the concept of Place and Place attachment (bioregionalism) important in Kingsolver's works?
2. Is there an "eco-cosmopolitan perspective" in Kingsolver's works? If so, how does she represent the concept?
3. How are the basic precepts of ecofeminist partnership ethics exemplified in her works?
4. How do Kingsolver's works entail a viable relationship between human and nonhuman communities in a particular place which is connected to the larger world through ecological exchanges?
5. How do Kingsolver's works typify anthropogenic damages to other species, including biota and abiota?

6. How do the works of Kingsolver reflect on the diverse aspects of the Anthropocene (such as species extinction, climate disruption, and growing toxicity of the ecosphere)?
7. How have human activities shaped or transformed the planetary ecosystem in the works of Kingsolver?

Chapter One

Knowing Our Place: Bioregionalism and Eco-cosmopolitanism

Judging from the multitudinous testimonials by and on behalf of writers, ancient and modern, as to the importance of the sense of place in their work, it might seem that place ought to be central to anyone's theory of environmental imagination. If the visions of relinquishment and of nature's personhood are to be realized concretely, if the fact of nature's seasonality is to be perceived, surely these events must happen somewhere. Some would even argue that environmental stewardships a personal commitment to a specific place.

Lawrence Buell, *The Environmental Imagination*, 1995, 252-53.

Introduction

Gillian Tindall, while examining the role of literary texts embedded within a particular oikos and their interaction across space and time, observes, "My central concern is not with actual landscapes and dwellings...but with what these have become in the minds of novelists and writers. I am concerned with the literary uses to which places are put, the meanings they are made to bear, the roles they play" (9-10). It is a similar concern of positing literary pieces within ecological spaces that Kingsolver articulates in many of her works. Studying the place that we inhabit, with diverse perspectives, offers an opportunity to understand how a particular region or bioregion has been shaped by the interaction between humans and nature. Kingsolver shares a relationship that is based on integrative structures. Her works decimate the

binaries and dismantle the privileges of anyone side over the other. This paves the way for a deeper understanding of the biota and abiota and a more meaningful integration and interactions of place through the shared creativity of her works.

The term “bioregion” was first used by Peter Berg and Raymond Dasmann (1977) in their work where Berg describes it as “geographic areas having common characteristics of soil, watershed, climate, native plants and animals” and “a bioregion refers to both the geographical terrain and a terrain of consciousness to a place and the ideas that have developed about how to live in that place” (reprinted in Glotfelty, “Reinhabiting California” 62). This “place-conscious perception” (Greunewald 619) of nature has the power to usher in bioregional awareness. This further aids in understanding the transition, with a trajectory that leads us from the local to the global. Swarnalatha Rangarajan (2018) states that *place* is important in ecocritical research as a place is integral to the community, identity, purpose, and a sense of connection with nature (Rangarajan 64). Mitchell Thomashow (1998), in “Toward a Cosmopolitan Bioregionalism,” stresses the significance of understanding the multiple layers of *place-based knowledge*. It is meaningful not only as a commitment to understand local ecology and human relationships but as a foundation from which to explore the relationships between and among places (125). This echoes what Gary Snyder (1990) has stated in *Turtle Island*: “To know the spirit of a place is to realize that you are a part of a part and that the whole is made of parts, each of which is whole. You start with the part you are whole in” (38). The essence of bioregional sensibility starts with the *part* and proceeds to give meaning to the *whole*, and simultaneously engages with perspectives of the local and the global in the context of place study.

Place Study: The First and Third Wave of Ecocriticism

Lawrence Buell (2005), in the *Future of Environmental Criticism*, has pointed out that place is an indispensable concept for environmental humanists and that the concept of a place also gestures in at least three directions at once. These are toward environmental materiality, social perception or construction, and individual affect or bond. These multiple directions make a place an additionally rich and tangled arena for environmental criticism (62). He further elaborates the differences between place and space, which are not simply antonyms:

Place entails spatial location, entails a spatial container of some sort. But space as against place connotes geometrical or topographical abstraction, whereas place is “space to which meaning has been ascribed” (Carter, Donald, and Squires 1993: xii). Places are “centers of felt value” (Tuan 1977: 4), “discrete if ‘elastic’ areas in which settings for the constitution of social relations are located and with which people can identify” (Agnew 1993: 263). Each place is also “inseparable from the concrete region in which it is found” (Casey 1996: 31) and defined by physical markers as well as social consensus. So, we speak of place-attachment rather than of space-attachment (Buell 64).

Environmental literature addresses the *place-attachment* in a specific way. It is grounded in the awareness of human-nonhuman nature liaison and interdependency. Buell further directs our attention to the various waves of ecocriticism, exploring the current tendencies related to the local and global concepts of place. The first wave and third wave of ecocriticism foreground the relationship

between the bioregional and global, adding greater global awareness to local and bioregional understandings:

What counts as a place can be as small as a corner of your kitchen or as big as the planet, now that we have the capacity to image earth holistically and modernization has shrunk the planet to the point that it is starting to seem possible to think of “global culture” or “global citizenship.” Ecocriticism, however, has tended to favour literary texts oriented toward comparatively local or regional levels of place-attachment. This has so far held as true for its second wave as for its first (Buell 67-68).

While analyzing the different waves of ecocriticism and place study, it is noteworthy to mention Scott Slovic’s “The Third Wave of Ecocriticism: North American Reflections on the Current Phase of the Discipline” (2010). He explains the four waves of ecocriticism, drawing on what Lawrence Buell in *The Future of Environmental criticism* (2005) has described as the several trend-lines marking an evolution from the first wave of ecocriticism to a second or newer revisionist wave or waves increasingly evident today (qtd in Slovic 5). The first wave (1980-present) of ecocriticism focused mainly on the concept of *place-attachment* (Buell 420) at a regional or local scale, based on the bioregional thoughts of Peter Berg, Raymond Dasmann, Wendell Berry, Gary Snyder, and Stephanie Mills. The second wave (1990-present) remains partially silent on *the place study* apart from focussing on the new attention to urban and suburban experience. Buell, Heise, and Thornber (2011) in “Literature and Environment” stress the *glocal* aspect of ecocriticism with the slogan “Think globally, act locally” and reiterate the fact that “Environmentalism had defined itself from the beginning as a global as well as local mode of thought”

(9). The third wave (2000-present) of ecocriticism further enhances the *glocal* aspect where global concepts of place are explored in “fruitful tension with neo-bioregionalist attachments to specific locales producing such neologisms as “eco-cosmopolitanism” (Slovic 7). The concept of “eco-cosmopolitanism” (Heise 10) focuses on new views related to place urging a unison of local and global dimensions of ecocritical experience presented in literary and non-literary texts.

Bioregionalism and Eco-cosmopolitanism

Bioregional theorist Jim Dodge explains that the term “bioregionalism” is formed from Greek *bios* (life) and French *region* (itself from Latin *regia* (territory)); thus, the meaning is “life territory” or “place of life” (qtd in Taylor 67).

Bioregionalism, as a philosophy, urges to gain an intimate and localized knowledge of dwelling in relation to place, biotic and abiotic community, and culture. It engages the inhabitants with the land as an allegiance that entails a commitment to bioregion as personal habitat, interdependent human community, and sustainable physical environment in cognizance of the interdependences between one’s particular ecosystem and the wider world (Buell 420). Robert L. Thayer Jr., in his work *Life Place: Bioregional Thought and Practice* (2003), states that 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

coastal zones) and by the unique human cultures that grow from natural limits and potentials of the region. Most importantly, the bioregion is emerging as the most logical locus and scale for a sustainable, regenerative community to take root and to take place (Thayer 3).

Swarnalatha Rangarajan (2018), in her work *Ecocriticism*, states that the concept of life-place signals a deep, respectful attachment to place and its other-than-human inhabitants. She refers to Yi-Fu Tuan (1974), who defines ‘topophilia’, the affective bond between people and place or setting (64). Michael Vincent McGinnis (1999), in his essay “A rehearsal to Bioregionalism”, traces the existence of the idea of bioregionalism in the primal native inhabitants or indigenous people who practiced many of its tenets. Elaborating on the concept, McGinnis further states that in the modern context of segregation of nature-society, bioregionalists stress the importance of reinhabiting one’s place and earthly home. A particular bioregion represents the intersection of “vernacular culture, place-based behaviour, and community”: “Bioregionalists believe that we should *return* to the place “there is,” the landscape itself, the place, we inhabit and the communal region we depend on” (3). This echoes Berg’s stand on the concept of *reinhabiting* with the optimum object of living sustainably. Berg has postulated three basic precepts of bioregionalism, namely, first, reinhabitation requires restoring and maintaining natural systems. Second, the people of each bioregion should find ways to meet basic human needs sustainably, relying on local materials and resources, and third, there must be support for individuals engaged in the work of sustainability (Glotfelty 3). Berg’s bioregional concepts bordering on sustainability and interdependency and supporting other species are important steps to limit the “modernist nature-society separation”

(McGinnis 3). Thus, it refers to the mutual and connected existence of all life forms on earth, creating sustainable human societies in unison with the natural world and flourishing of all species in a particular region. John Charles Ryan (2012), in “Humanity’s Bioregional Places: Linking Space, Aesthetics, and the Ethics of Reinhabitation”, quotes Wendell Berry’s description of bioregionalism as “a local life aware of itself”. But Ryan prefers to describe bioregionalism as “a local life aware of itself in its natural setting”. Place evolves out of the interplay between humans and the environment with the environment as a point-of-reference. Bioregionalism’s emphasis on natural places is viewed as a possible solution to the recurring pattern of human negligence toward the natural world (82-84). Wendell Berry has argued that without possessing a complex knowledge about one’s place and without faithfulness to one’s place on which such knowledge depends, it is inevitable that the place will be used carelessly and eventually destroyed (69). Knowledge about one’s place or bioregional sensibility is a positive, proactive force to face the challenges of impending environmental crises and “learning to live-in-place” (Berg 6) sustainably.

Mitchell Thomashow (1998), in “Toward a Cosmopolitan Bioregionalism”, explains that bioregionalism advocates “a spirit of wholeness within a community, a place-based foundation, grounded in the ecological nuances of the home territory” (124). Bioregional sensibility focuses on the connections between place-based knowledge and global environmental change, the interdependence of local ecology and global economics, and the matrix of affiliations and networks that constitute ecological biodiversity and multicultural and multispecies tolerance: “This is the basis of a local/global dialectic and emphasizes the necessity of a cosmopolitan

bioregionalism” (121-122). Ursula K. Heise in *Sense of Place and Sense of Planet* (2008) states the concept of *eco-cosmopolitanism* as “an attempt to envision individuals and groups as part of planetary “imagined communities” of both human and nonhuman kinds” and “that of connectedness with both animate and inanimate networks of influence and exchange” (61) and “model forms of cultural imagination and understanding that reach beyond the nation and around the globe” (6). This construct is what the environmental advocates of place strive to achieve. Heise also talks about the term “deterritorialization” as “the increasing connectedness of societies around the globe, entails the emergence of new forms of culture that are no longer anchored in place” (10). She states that deterritorialization enables a better understanding of local and global connectedness. Heise, by deterritorialization, means detachment of ties of culture to place and breaking the anchors of social and cultural perspectives from the local environment. At the same time, deterritorialization enables a reconfiguration or reconnection of these ties on a global scale. While explaining deterritorialization, Heise writes that “ecologically oriented thinking has yet to come to terms with one of the central insights of current theories of globalization” such as the increasing connectedness of societies around the globe, which entails the “emergence of new forms of culture that are no longer anchored in place, in a process that many theorists have referred to as ‘deterritorialization’” (Heise 10). Ulrich Beck (2004) has explained a similar process as ‘cosmopolitization’ (Beck 65-67). Thus, eco-cosmopolitanism and deterritorialization reflect similar perspectives. Alexa Weik (2007) states that this proves to be “an important move for ecocritics...[and] would be the acknowledgment that a monogamous attachment to and unmediated knowledge of a

specific place is not the only, and perhaps not even the best way to develop a sense for the planet as a whole” (Weik 123).

Unlike cosmopolitanism, eco-cosmopolitanism, explains Heise is not “circumscribed by human social experience” and “reaches toward what some environmental writers and philosophers have called the “more-than-human world”—the realm of nonhuman species, but also that of connectedness with both animate and inanimate networks of influence and exchange” (Heise 60-61).

The present chapter maps the concept of bioregionalism and eco-cosmopolitanism. Barbara Kingsolver’s fiction and non-fiction represent her bioregional and eco-cosmopolitan perspective in relation to places. Her responses to place involve a *connectedness* to the physical world and the creation of an ecologically sustainable community. Heise (2008) stresses this *connectedness* as she explains the eco-cosmopolitan approach: “the point of an eco-cosmopolitan critical project, therefore, would be...to investigate by what means individuals and groups in specific cultural contexts have succeeded in envisioning themselves in similarly concrete fashion as a part of the global biosphere” (Heise 62).

Heise’s concept of eco-cosmopolitanism encourages “to envision individuals and groups as part of planetary ‘imagined communities’ of both human and nonhuman kinds” (Heise 61) and “a way of imagining forms of belonging beyond the local and the national” (Heise 6). She claims that the concept serves as a launchpad for ‘glocal’ environmental awareness and activism instead of foregrounding the ‘importance of localism’. Therefore, eco-cosmopolitanism introduces and establishes a connectedness and linkages between “animate and

inanimate networks of influence and exchange”: “Adding to it the prefix “eco-” was meant to highlight the urgency of including environmental problems and ecological cultures in these new conceptions of transnational identity and activism” (Heise 285).

Kingsolver, in her conversation with writer Crystal Wilkinson (2014), has emphasised these linkages of ‘local to global’—the environmental connectivity. She has spoken about the gradual growth of her ecological consciousness related to place, her “sense of place, belonging and point-of-view” (Kingsolver 39).

Kingsolver, born in Maryland, grew up in Carlisle, Kentucky, and then lived briefly in Africa. Her short stay in Arizona, a visit to Mexico, and settling in a farm in Appalachia reflect the range of her place sensibility and attachment. So, her perception and sense of place have a different foundation for attachment:

It was just in my nature to pay close attention to the nuances of language, culture, behavior, landscape, foods, scents, trees, the flowers that are in season—all the things that make a place what it is and form the foundations for a person’s attachment. If a sense of place is important in my writing, that’s just my psyche. Place is the filter through which I understand everything. When I listen to conversations, I can’t help pulling out the threads of idiom that are particular to a place. Over the years, as I’ve come to understand the poetry of the land that made me, I’ve forgiven its trespasses, and those of my own (Kingsolver 39).

Kingsolver uses ‘place as a filter’ in all her work to understand the human-place relationship and her fiction and non-fiction project all earthscapes, local and

global: the mountain south, the deserts south/southwest, the wetlands, drylands, woodlands, coasts, grasslands, etc. “If Kingsolver’s relationship to place has been somewhat south-by- southwest”, argues Anna Creadick, “the human relationship to place has consistently been a topic for contemplation, in both her fiction and non-fiction” (Kingsolver, “Charting Authors, Mapping Readers”132).

Place Study: Kingsolver’s Non-fiction

I have places where all my stories begin.

Kingsolver, *Small Wonder*, 2003, 31.

Last Stand: America’s Virgin Lands (2002)

Kingsolver’s *Last Stand: America’s Virgin Lands* is published by National Geographic in 2002, along with the remarkable photographs of various bioregions by Annie Griffiths Belt. The five sections (wetlands, woodlands, coasts, grasslands, and drylands) of this non-fictional work are built following the environmental thinking of five visionaries—William Bartram, Henry David Thoreau, John Muir, Aldo Leopold, and Edward Abbey. Essentially, these shorter pieces are testimonies of Kingsolver’s visions and her beliefs about the deep interconnection that exists between *all species and the place* (emphasis is mine) in a particular bioregion. Linda Wagner Martin (2014) considers the *Last Stand* as “a kind of illustrated, informal history of the pioneers who worked to educate the public about the values of

uncorrupted lands” (Martin 135). Michael Branch, in his article “Indexing American Possibilities” (1996), has explained the ‘topographical imperative’ that inspired and called for a national literature, which was consistently expressed in terms of nature. He explains that Americans demand a culture that would be commensurate with the greatness of the land. They consider the culture will be as expansive as the prairies, as lofty as the mountains, as prolific as the forests of the continent. The writings of Henry Thoreau and his literary descendants, such as John Muir, John Burroughs, Aldo Leopold, and Edward Abbey, focuses on the *topographical imperative*. Branch also emphasises the contribution of “early romantics”—William Bartram, Alexander Wilson, and John James Audubon—introducing a new pattern in ecological thinking in American culture. These writers offered an alternative to the dominant and dominating expansionary ethos of the age and helped to initiate a minority tradition of environmental concern into American intellectual history. They emphasise that there must be a feeling of membership in a natural community and the morally regenerative qualities of nature in order to appropriate ecological thinking (286). Kingsolver reemphasises this aspect in the *Last Stand* as she details the contribution of these five visionaries in shaping American culture and national history.

Kingsolver harps on the importance of organizing this book according to the types of habitat. She stresses the ecological and biological similarity in the geological positioning of the various habitats. She states that the Mojave Desert of California has more in common with a desert in Arizona. Therefore, there exists an likeness among the habitat zones reaching across distances great and small to create with all other ecotypes of their powerful biotic resonance. Kingsolver aims to present that resonance in the *Last Stand* and the natural truths about how these habitats

interconnect, placeless, and timeless beyond human measures of these concepts (Kingsolver 19).

The section “**Wetlands**” narrates a brief history of the early settlements in the United States back to the 1600s and the government projects of draining swamplands or wetlands, “the spongy green organs that maintain and purify the blood of our land” (Kingsolver 30), in the southern colonies during mid-1700s: “the desiccation of our continent persisted well into the 20th century, as the government provided free engineering services to any farmers wishing to drain their wetlands” (Kingsolver 29). Robert Sayre, in his article “William Bartram and Environmentalism” (2015), states that it is important to understand the essence of Bartram's vision in the North American setting. The first colonists found what they saw as “wilderness”—lands sparsely populated by peoples whose imprint on them was light—but the “civilizing” of them was rapid at the hands of the newcomers. He continues that this early capitalist civilization was agriculture-based, so the colonists maintained the expansionist logic while acquiring land, and Bartram, during his trip, encountered several manifestations of this process (69). Kingsolver states that Bartram’s life’s work *Travels*, published in 1791, long before Darwin’s *Origin of Species*, recounts the first white man’s study to capture the beauty and grace of the natural biosphere of wetlands or swamp worlds and befriending the native peoples. Bartram’s *Travels* (1791) is a unique book with a combination of objective scientific perspective and depiction of nature as God’s bountiful creation. Larry R. Clarke (1985), in “The Quaker Background of William Bartram's View of Nature,” has attributed Bartram’s view of nature as a legacy of being a Quaker. This dominant view is exhibited from the very outset of the work. Bartram explores that the natural world, as a glorious apartment of the boundless palace of the sovereign Creator, is

furnished with an infinite variety of beautiful and pleasing animated scenes. Robert Sayre also stresses that *Travels* presents the key aspect of Bartram's ecological vision, "a sense of unity and interconnectedness in the world of the living." Michael Branch (1996) explores that Bartram's advocacy of nature and his criticism of anthropocentric pretensions prefigure "ecocentric egalitarianism" of contemporary ecophilosophy.

The section "**Woodlands**" concentrates on the works of Henry David Thoreau, particularly *Walden* (1854). Kingsolver recounts the endangered condition of the woodlands in the country and the consumption of lumber. She observes that the American population accounts for only 5 percent of the world's population, but they use more than a quarter of all the wood that is commercially harvested worldwide. She begins with Thoreau's venture to live in the Walden Pond in 1845, which started with the felling of pine woods for Thoreau's little house. Thoreau declared himself as more than a friend than the foe of the pine tree, though he has cut down some of them, "having become better acquainted with them" (qtd in Kingsolver 63). Lawrence Buell, in "Thoreau and the Natural Environment" (1995), considers Thoreau as the "first American environmentalist saint" whose first intellectual prompting to study and write about nature was from books and literary mentor like Ralph Waldo Emerson. His career in pursuit of nature has become one of fitful, irregular, experimental, although increasingly purposeful, self-education in reading the landscape and pondering the significance of what he found there (171). Kingsolver echoes Thoreau in *Walden*, about the depredations of the pine woods, the woodlands. Thoreau records: "When I first paddled a boat on Walden, it was completely surrounded by thick and lofty pine and oak woods". Later, he records

how the farmers and woodchoppers have contributed to the waste and how this slow decimation has led to the disappearance of biodiversity. Kingsolver quotes Thoreau in *Walden*, where he has documented the majestic fall of the chestnuts. Kingsolver's words resonate with Thoreau's outburst about the decline of the pristine and original woodlands that once covered 48 conterminous states. Only three to four percent of the chestnut trees still stand.

The section "**Coasts**" begins with John Muir's environmental visions and his belief to be inspired by "grand savage harmony" and protect places "to play in and pray in, where Nature may heal and cheer and give strength to body and soul" (qtd in Kingsolver 93). Kingsolver, the scientist, observes the importance of coasts in nurturing the ecosystem of a region. The interdependency of plant life, animal life, and human life is vividly perceived in a coastal bioregion. Life clings eagerly to the seashores: plant life, animal life, human life. More than 110 million Americans now live along the coastal edges of the continent and have brought along all by-products of the habitation. Kingsolver asserts that Muir is best remembered for his writings about West Coast, from redwoods to Glacier Bay. R. M. McDowall (2010), in his editorial "Biogeography in the Life and Literature of John Muir: A Ceaseless Search for Pattern", has stated that Muir undertook a long walk across the southern states of the eastern United States, from Louisville, Kentucky, south to the Florida coast of the Gulf of Mexico. The detail of the trip is published as *A Thousand Mile Walk to the Gulf* (1916) posthumously from his diaries. Muir describes the latitudinal changes in the vegetation, from the inland forests to the coastal bayous and wetlands of the Gulf coast. This description is a remarkable record of the biogeography of the central and southern latitudes of the eastern USA. These studies document how in a

great diversity of biological and geological values, Muir sought to integrate varying aspects of the landscape and its flora and fauna. “What does such a synthesis represent, if not biogeography?” (McDowall 1632).

The section “**Grasslands**” recounts the environmental thinking of Aldo Leopold, who changed “our view of the landscape from still life to active drama” (Kingsolver 127). Kingsolver asserts that Leopold’s profound knowledge of botany, evolution, and new science is converted into poetics. The resultant creation is *A Sand County Almanac* (1949). In this section, Kingsolver proceeds to detail the geography of North America’s greatest grassland, the Prairie, that took root about 25 million years ago and lasts the onslaught of changing season. The Prairie is prepared to endure temperatures between minus 40°F and 400°F, and the eternal life of the prairie lies in its roots. But the grasslands cannot survive *the plow* (Kingsolver 128). The settlers destroyed the natural grasslands turning them into agricultural land, and in less than 80 years, 240 million acres are converted into cropland of corn and soybeans.

Nina Leopold Bradley and Wellington Huffaker, in the “Forward” of *Aldo Leopold and the Ecological Conscience* (2002), state that Leopold was familiar with the process of environmental and conservational challenges. In 1934, Aldo Leopold has written in his notes on German game management. He states that humans shall learn that there is no such thing as forestry and game management in the near future. The only reality is to foster intelligent respect for and adjustment to the inherent tendencies of land to produce life (Leopold, “Unpublished Notes” xi). Leopold’s most significant contribution to environmental ethics and philosophy is Land Ethic.

Michael P Nelson (1998) explains that Land Ethic is the beginning of environmental ethics, and for Leopold, it is the appropriate response to the recognition of biotic communities. The Land Ethic is the ethical response correlative to our perception of nature as a biotic community. It corresponds to our most recent realization that land is likewise organized as a community.

The final section of the *Last Stand* is “**Drylands,**” based on the thoughts of the environmental visionary Edward Abbey. Kingsolver begins with descriptions of the drylands of deserts that geographers call “horse latitude deserts”. The latitudes touch down on board arid belts that circle the planet between 15⁰ and 30⁰ north—the Sahara, Libyan, Arabian, Lut, Thar, Sonoran, Chihuahuan, Mojave, and Great Basin Deserts—and the equivalent latitudes in the Southern Hemisphere, where lie the Namib and Kalahari of Africa, the Australian outback, and the Atacama of South America. These are familiar xeriscapes that give shape to our notion of desert. Scott Slovic, in his work, *Seeking Awareness in American Nature Writing: Henry Thoreau, Annie Dillard, Edward Abbey, Wendell Berry, Barry Lopez* (1992), writes that Edward Abbey’s *Desert Solitaire* (1968) contains many examples of the harshness and unfamiliarity of the desert landscape. It describes the desert features, which most of us would consider predictable and commonplace, such as the general lack of water and the occasional, sudden, deadly, and nourishing return of water in the form of deluges and flash floods. These are presented hyperbolically, sometimes nightmarishly, so that they become defamiliarized and alien (93-94). Kingsolver resonates with this interpretation as she says that the human imagination seems to reserve its greatest dread for and reverence for drylands designating deserts as badlands and wastelands. Kingsolver states that how human encroachment of land

has resulted in habitat loss of the deserts or arid southwest. Slovic (1992) presents the contrasting ways of looking at *Desert Solitaire* (1968) and *The Monkey Wrench Gang* (1975):

Edwin Way Teale called *Desert Solitaire* “a voice crying in the wilderness, for the wilderness” (“Wild Scene,” 7). And Grace Lichtenstein, reviewing *The Monkey Wrench Gang* for the *New York Times*, notes that Abbey “has been the most eloquent spokesman for angry nature-lovers... His message, that only a radical change in the American life-style or even more radical action will preserve the land for future generations has become a watchword among the growing minority of those who call themselves 'eco-freaks' (24)” (Slovic 102).

***High Tide in Tucson* (1995): “Making Peace”, “The Memory Place”, “Jabberwocky”, “Paradise Lost”, and “Infernal Paradise”**

The essays in *High Tide in Tucson* (1995) present Kingsolver’s immediate connection with landscape or place with reference to the larger patterns of the biosphere. Her experience and perceptions are not limited to the specific and immediate boundaries of places but encompass more than the *small patch* she inhabits. “**Making Peace**” opens with her conscious decision to lead a life imitating Thoreau’s *Walden*: “When I left downtown Tucson to make my home in the desert, I went, like Thoreau, “to live deliberately” (Kingsolver 23). But the courageous effort to live in the desert makes her an owner of a small patch of prairie. She plants a kitchen garden, hollyhocks in rugged terrain, green with mesquite woods, and rich

wildlife. This gives her joy with the prospect of *owning* (emphasis is mine) a place like a pioneer claiming her plot.

Exploring concepts like “ownership” and “territoriality”, Kingsolver proceeds to explain the concept of “niche”. She believes that the concept of ownership is completely a human construct. The way she describes her silent joy over owning *her own place* supports her reasons related to human ownership of the place. She reflects that humans have come to see human ownership of places and things, even other living creatures, as a natural condition. But the concept of “territoriality” is significantly different. As a biologist, Kingsolver explains the concept of territoriality that animals, particularly territorial male species, possess. They generally mark out a little plot during breeding seasons as their own and defend it from others of their kind, and the whole concept is related to reproduction within that hallowed territory. The idea is entirely different from human ownership of land. Kingsolver states that human beings debate on the concept of lordship, private, public property, the rights, authority, and questions of distribution. On the contrary, animals create a ‘niche’ for themselves. Selecting a cubic foot of earth and sharing that with thousands of different species is creating a ‘niche’: “This is the marvellous construct of “niche,” the very particular way an organism uses its habitat, and it allows for an almost incomprehensible degree of peaceful coexistence” (31). Kingsolver takes a singular stance on the idea of owning a place. She discards the idea of lordship and prefers territoriality (in the nonhuman sense) or creating a *niche* for the more enduring value of blending in. Her abdication brings a sense of relief. She reflects that it is a relief to relinquish ownership of unownable things. She mentions that Engels has remarked at the end of his treatise that the outgrowth of the

property has become so unmanageable that the human mind stands bewildered in the presence of its own creation. He thinks that a mere property career is not the final destiny of humankind.

“The Memory Place” is written in the same vein as William Wordsworth’s *Lines Composed a Few Miles above Tintern Abbey, On Revisiting the Banks of the Wye (July 13, 1798)*. Kingsolver’s revisiting the wilderness of Kentucky with her daughter Camille is similar to Wordsworth’s revisit to Tintern with Dorothy Wordsworth. Hence, the title of the essay justifies her narration of childhood memories related to the land. Kingsolver describes the deep forest near Cumberland Falls, Kentucky, on her journey towards Horse Lick Creek. Camille, her daughter, is quietly musing the same feelings that Kingsolver felt when she visited the place during her childhood days: “This reminds me of the place I always like to think about.”

“Me too, I tell her. It’s the exact truth... it was the experience of nature, with its powerful lessons in static change and predictable surprise. Much of what I know about life, and almost everything I believe about the way I want to live, was formed in those woods. In times of acute worry or insomnia or physical pain, when I close my eyes and bring to mind the *place* I always like to think about, it looks like the woods in Kentucky.” (Kingsolver 170).

These lines from the essay pour out the same emotion that of Wordsworth and his indebtedness to the calm tranquillity of the landscape of Tintern:

These beautiful forms,
Through a long absence, have not been to me
As is a landscape to a blind man's eye:
But oft, in lonely rooms, and 'mid the din
Of towns and cities, I have owed to them,
In hours of weariness, sensations sweet,
Felt in the blood, and felt along the heart;
And passing even into my purer mind
With tranquil restoration:—feelings too
Of unremembered pleasure: such, perhaps,
As have no slight or trivial influence
On the best portion of a good man's life.
His little, nameless, unremembered, acts
Of kindness and of love (*Tintern Abbey*, ll-23-36).

Kingsolver further echoes Wordsworth as she describes the activities that Camille is engaged in. Like Camille, she used to stalk the butterflies, spot crayfish holes along the creek banks, and cherish the deep throaty clicking of frogs. These child adventures she pursued with tireless enthusiasm three decades ago. Like Wordsworth watching Dorothy, Kingsolver watches Camille: “I recognize, exactly,

Camille's wide-eyed thrill when we discover a trail of deer tracks in the soft mud among bird foot violets" (Kingsolver 178).

My dear, dear Friend; and in thy voice I catch

The language of my former heart and read

My former pleasures in the shooting lights

Of thy wild eyes. Oh! Yet a little while

May I behold in thee what I was once,

My dear, dear Sister! (*Tintern Abbey*, ll-119-124).

Kingsolver in "The Memory Place" has synchronized the *Wordsworthian perception of landscape* with the scientific detailing of a biologist. She narrates how humans are *wedded to a place* (Cusick 213) and how the natural love for a place is similar to that of a mother and child. She perceives that human love for their natural home has to go beyond finite into the boundless. It is like the love of a mother for her children. Her sharing of the memories of the exotic place with Camille is handing down the legacy of place sensibility and attachment from one generation to the future, mother to daughter. She hopes that in the near future, Camille may come back to Kentucky wilderness to find the place with its natural exuberance exactly as Kingsolver or Camille remembered it: "I am holding constant vigil over my daughter's memory place, the land of impossible childhood discovery, in hopes that it may remain a place of real refuge" (Kingsolver 180).

Kingsolver is a scientist, and, perhaps, is the most prominent voice of unison (between poetry and science) after Rachel Carson. Christine Cusick, in her

article “Remembering Our Ecological Place: Environmental Engagement in Kingsolver’s Non-fiction” (2010), reflects that Carson’s *Silent Spring* (1962) is perhaps the most formidable non-fiction voice of the twentieth century to teach us about our biological place using both scientific and poetic language. Kingsolver, in her non-fiction, has achieved a similar effect as her non-fiction, uncovers the value and need for an interdisciplinary meeting of literature and science (214). “The Memory Place” continues to depict Kingsolver’s bioregional consciousness as explored in *Last Stand* (2012). The description of the Horse Lick Creek, an *ecotone* holding all rarest and exotic biota and abiota, gives detail about the scientist’s and the poet’s engagement or bond with the ecosystem. Horse Lick Creek is unique as an ecotone. The ecotone holds less conspicuous riches, such as limestone cliffs and caves that give shelter to insectivorous bats, including the endangered Indiana bat; shoals in the clear, fast water where many species of rare mussels survive the battling anthropogenic invasion. Jesse Minor (2015) in *Encyclopedia of Environment and Society* defines “Ecotone” as “the highly dynamic boundary between two disparate ecosystems: vegetation types and biomes” such as a terrestrial-aquatic boundary. He further explains that because of the variability of vegetation and abiotic factors characterized by ecotones, biodiversity tends to be higher than in relatively homogenous habitats on either side of the ecotone (535). Horse Lick Creek is a tributary to the Rockcastle River, a wild river, which drains most of eastern Kentucky. The creek is 16 miles long, with a watershed of 40,000 acres. As the ecotone, Horse Lick Creek shares a terrestrial-aquatic boundary, and the Nature Conservancy has chosen Horse Lick as a place to cherish and protect. In the context of “conservation”, Kingsolver ends with a very timely and unique question to the environmentalist’s canon:

Who will love the *imperfect* lands, the fragments of backyard desert paradise, the creek that runs between farms? In our passion to protect the last remnants of virgin wilderness, shall we surrender everything else in exchange? One might argue that it's a waste of finite resources to preserve and try to repair a place as tame as Horse Lick Creek (Kingsolver 180).

“Infernal Paradise”, a travel essay, narrates Kingsolver's visit to Haleakala, the world's largest dormant volcano, in Hawaii. She describes “the precipice of a wilderness” and “lunatic landscape” as “Haleakala is entirely of the earth, and nothing of human artifice” (Kingsolver 196). The unique topography of Haleakala Crater creates its own weather. While one part of the high-altitude crater is scorching, other parts are freezing cold by frequent rain. One part is barren, while other parts have lush fern forests because of heavy rainfall. It is one of the most difficult landscapes ever to host natural life. Kingsolver describes the strange landscape created from a volcanic eruption a million years ago. The different flora and fauna, species life in a Haleakala Crater, evolve as new and unique species due to natural selection and absence of predators. The silversword is a plant that lives in lava beds and dies in a giant flowery starburst, and the n n is a crater-dwelling goose that has lost the need for webbed feet because it shuns the sea. These are the spectacular lives that thrive in the crater. Kingsolver further describes the anthropogenic invasions that have pushed these exotic species into extinction. The Hawaiian forests were first endangered and then extinct. Her trekking and travel in Haleakala Crater are considered as a poor choice of vacation by friends, and that leaves her further questioning the general human disregard for nature, place, and environmental future of our planet: “How can we proceed with such pure disregard for the ones who will come after—not just our own heirs, but all of life?” Kingsolver

quotes Linda Hogan in the *Heart of the Land*, “new terms and conditions that are relevant to the love of land... We need to reach a hand back through time and a hand forward, stand at the zero point of creation to be certain that we do not create the absence of life, of any species, no matter how inconsequential it might appear to be” (qtd in Kingsolver 205).

“**Jabberwocky**”, another travel essay, recounts Kingsolver’s year-long stay in the Canary Islands. Disconcerted about the political situation in the US (the first Gulf War), Kingsolver decided to stay in the Canary Islands for a year. Her symbolic protest was not a mere addendum but a way of life for Kingsolver. The title of the essay reminds one of Lewis Carroll’s famous nonsense poem *Jabberwocky* (1871). The essay, much like the poem, breathes a sense of both ambiguity and uncertainty. The essay hardly has any specific intended meaning, and the readers are allowed to infer their own impressions and, therefore, to be engaged with the political context of the essay. Linda Wagner-Martin (2014) notes that “in this essay, she tries to describe her antagonism to the dismissive use of the word “political” (89). Kingsolver elaborates the term “political” as:

Technically, the term “political” refers to campaigns, governments, and public institutions... Barry Lopez is called political, and he writes about dying ecosystems and great blue herons and wolves, for heaven’s sake. It took me years to work out what it is that earns this scalding label for an artist or an act (Kingsolver 228).

The Canary Islands, Kingsolver’s ‘political exile’, offers her the sound of the ocean in her window, along with the towering poinsettia trees that blossomed

along the roadsides. The essay “**Paradise Lost**” further elaborates Kingsolver’s deep attachment with the Canary Islands: “Subtropical Europe seemed an idyllic combination of wild and tame: socialized health care and well-fed children, set in a peaceful tangle of banana trees and wild poinsettias” (Kingsolver104). Her travel to La Gomera, the seventh and most secretive of the Canary Islands, is home to the aborigines and has a ‘reputation for backwardness’. The Gomerans themselves are sometimes likened to Guanches—the tall, blue-eyed, goat-herding aboriginals. Throughout the Canary Islands, the Guanches herd goats, make simple red-clay pottery, and follow the lifestyle known as Neolithic, living out their days without the benefit of metal. Gomerans love to repeat the story of Columbus’s great voyage. Musing on the same tale, Kingsolver describes the rich landscape of the Canaries, which has many other tales to unfold. Kingsolver narrates these stories, the ‘place-stories’ that connect humans, animals, and the landscape. She describes the gardener’s conversation in *silbo*, the exotic means of communication, a type of language unique in the world, which is not spoken but *whistled*. The island of Gomera is a deeply eroded volcano with six deep gorges. Across the stunning view of the sea and cliff, the island of Tenerife shows its snowclad grand volcano, Mount Teide. The Garajonay National Park is a central plateau of ancient laurel forest in La Gomera. The lush vegetation in an otherwise dry island reminds Kingsolver of the effects of humans on natural habitats and species: “At some point between the dinosaur days and the dawn of humankind, forests like this covered the whole Mediterranean basin; now they have receded to a few green dots on the map in the Madeira and Canary Islands” (Kingsolver 117). Kingsolver remembers her childhood days spent in the heart of the Congo and her connection with the African landscape as she overlooks the “long, pink curving flank of Africa”. The easternmost

Canary Island is only sixty-seven miles from the Saharan sands of mainland Africa. The African landscape is visible from this part of the Canary Islands, the Spanish archipelago. Spain can claim this land, Kingsolver reflects, but geography still asserts itself from time to time, as a reminder that the islands will always belong to Africa. Kingsolver's voice is one that articulates and honours both democracy and community.

***Small Wonder* (2003): “Knowing Our Place”, “The Patience of a Saint”, “Called Out”, “Saying Grace”, “Seeing Scarlet”, and “Setting Free the Crabs”**

Kingsolver's essays in “Small Wonder” portray earthscapes—Arizona deserts, Grand Canyon, rivers in Arizona, Talamanca Highlands, Costa Rica, Sanibel Island in the Gulf, Mayan (Guatemalan) lands—*places* that tell stories of Kingsolver. Linda Wagner Martin in *Barbara Kingsolver's World* (2014) opines that “**Knowing our Place**” is reminiscent of “The Memory Place” from *High Tide in Tucson* (1995), stressing the values of wilderness and place (117): “People *need* wild places. Whether or not we think we do, we *do*. We need to be able to taste grace and know once again that we desire it. We need to experience a landscape that is timeless, whose agenda moves at the pace of speciation and glaciers... Wildness puts us in our place” (Kingsolver 40). In “Knowing Our Place”, Kingsolver recounts Barry Lopez writing to protect natures other than our own “it will require of many of us a humanity we've not yet mustered, and a grace we were not aware we desired until we had tasted it” (qtd in Kingsolver 39). The importance of protecting the land to continue the real story of humankind, *our genesis*:

The land *still* provides our genesis... What you hold in your hands right now, beneath these words, is consecrated air and time and sunlight and, first of all, a *place*. Whether we are leaving it or coming into it, it's *here* that matters, it is *place*... It's as persistent as our desire to teach our children how to live in this place that we have known longer than they have. Our greatest and smallest explanations for ourselves grow from place (Kingsolver 40).

She stresses the great significance of owning a rooted sense about the place that is as tangible as religious faith and to hold on to the wilderness that use to surround human-animal lives. Quoting Annie Dillard, she continues to encapsulate her sense of connectedness to wild and beautiful landscapes untouched by human artifacts. Dillard believes that the least we can do is try to be there, whether or not we will or sense this connection. Kingsolver states her dependency on places that weave her stories creating a global sense of place.

“The Patience of a Saint”, “Called out”, and “Seeing Scarlet” are three essays co-written with her husband Steven Hopp for a natural history magazine. “The Patience of a Saint” recounts teaching her children the eternal value of rivers in the Arizona desert: “we may long to re-create the landmark events of our own childhoods for our children, water passes on...Nowadays when my family sets out for a lesson in the river, we often drive southeast from Tucson to a narrow, meandering cottonwood forest where the kids may attempt to vault the San Pedro” (Kingsolver 42). San Pedro, a hostile piece of land, is an important corridor and the natural habitat protected since 1988 as the San Pedro Riparian National Conservation

Area and the nation's "Last Great Places". The river is life to a rich extravaganza of flora and fauna. Rare species like the Huachuca leopard frog, the brush-prowling ocelot, and the bright-feathered birds thrive in this hostile expanse of land across nearly half the river's hundred miles and fifty-eight thousand acres of the corridor. For eighty-two species of mammals, forty-three kinds of amphibians and reptiles, 385 inland avian species, and the winter nesting ground of millions of migratory birds from the US and Canada, San Pedro is home. "Called out" begins with the description of the desert hills and abandoned cotton fields. The flat salinized dead ground is abundant with flowers. Kingsolver stresses the ruins of human extraction are replenished with a wealth of nature. This image is interwoven with the Chol, Tzeltal, and other refugees' former tradition of slash-and-burn farming, consuming the land and then abandoning it as dead before they are ideologically transformed to stand up for the Calakmul forest. The miracle of cataloging a whole new species of flowers in the Sonoran Desert is a kind of special magical event for Kingsolver. But for certain species, the bloom is just the means to an end, producing seed to continue life. Scientists at the University of Arizona have been examining the intricacies of seed banks and studying the *Desert Ephemerals* and their own cycles to an unpredictable climate cycle. "Seeing Scarlet" documents her destination in the Corcovado National Park on the Osa Peninsula, biologically rich and protected home of the Central American population of globally endangered bird Scarlet macaws. With sparse human settlements, Osa provides the richest biodiversity with 400 avian species and 140 mammals. Kingsolver treks to Talamanca Highlands on a pitted, serpentine highway in search of the natural habitat of *Ara macaw* "a scarlet macaw: a fierce, full meter of royal red naked white face, a beak that takes no prisoners" (Kingsolver 51). Linda Wagner-Martin, in her Great Writers series *Barbara*

Kingsolver (2004), says that the collective impact of these three essays about rivers and natural beauty is seen from their Virginia cabin or their Arizona house. The strong bond between humans and nonhumans is a pervasive theme in Kingsolver's writings. She states that Kingsolver writes about the *southwest*, the region she introduces in a different vein. Kingsolver, the biologist and anthropologist, was attracted to the mixed population, customs, the beautiful terrain, and unfamiliar animals. Arizona was another of the *places* she wanted to experience (Wagner-Martin 40).

“Saying Grace” is a classic commentary on the moving description of the Grand Canyon's natural surroundings (Wagner-Martin 117). Kingsolver reflects that one earth cannot offer more than to lay herself bare. The bare landscape, the ‘biological homeplace’ of Grand Canyon, presents the whole of her bedrock history in one miraculous view. Elaborating on the context of ‘biological homeplace’, Kingsolver states that we, humans, have inherited the grace of the Grand Canyon, plain the mystery of Everglades, and the fertility of Iowa for ourselves and the future generation. Her connection with the landscape is evident with her expressions of her consciousness that is locked inside her. These modes of experience are expressed in her sensitivity and thoughts: “Taking the long view across that vermilion abyss attenuates humanity to quieter internal rhythms, the spirit of ice ages and we look, we gasp, and it seems there is a chance we might be small enough not to want are not the end of the world” (Kingsolver 22). Written in a similar vein, **“Setting Free the Crabs”** is about Kingsolver's determination to teach her children the human-nature equation and interdependency and to respect it. This is the legacy she has inherited and to pass on: “I have tried to teach my children to love nature as my parents taught

that reverence to me—through example, proximity, and plenty of field guides and age-appropriate biology books” (Kingsolver 62). Set in the Sanibel Island in the Gulf, Kingsolver, her daughter, and mother feel languid as they stride on the “littoral zone: no-man’s-land, a place of intertidal danger for some forms of life and blissful escape for others” (Kingsolver 62).

Animal Vegetable Miracle: A Year of Food Life (2008)

Animal Vegetable Miracle: A Year of Food Life (2008), co-written with Steven Hopp and Camille Kingsolver, narrates Barbara Kingsolver’s family decision to relocate to a farm in Virginia, leaving arid Arizona and sustaining on locally grown food. This non-fiction recounts the bioregional living of the Kingsolver family “[a] year of minimizing their ecological footprint by eating seasonally and locally. Dwelling in place demands attention to seasonal time”. Kingsolver focuses on the seasons as “eating seasonally creates and sharpens the sense of place. The sun’s annual cycle sets the rhythm for the writing...The cyclical, seasonal world of food is a great way into a community” (Lynch et al. 280). Following Thoreau's *Walden* (1854), the narrative covers a year’s time span of spring to spring, chronicling the genuine food culture that “is an affinity between people and the land that feeds them” (Kingsolver 20). To begin in rural southern Appalachia, a place that Kingsolver connects as the home, is a trip of life for her family. She wants to live in a local place, other than the arid desert of Arizona, that could feed her family and a place where rainfall is abundant, crops grow, and drinking water bubbles right up out of the ground. The text records how one family learns to understand this web by living within the resources of their farm and their local community. It documents

Kingsolver's bioregional living, merging the local sense of place with global place consciousness. Kingsolver reflects that agriculture is the oldest and continuous livelihood that humans are engaged in, and this line of work is the basis of our promotion to 'Animal-in-Chief'. Growing food is the first activity that gives humans enough reason to stay in one place, form complex social groups, and recount success stories of human life. Raising the context of "Food Life" in the subtitle of the non-fiction *Animal Vegetable Miracle: A Year of Food Life*, Kingsolver reflects the food culture that is "our ingrained rules of taste and civility". Food cultures concentrate on a population's collective wisdom about the plants and animals that grow in a place. Living without such a culture would seem dangerous. Linda Wagner-Martin, in *Barbara Kingsolver's World* (2014), discusses the provocative "Food Life" part of the title. She reflects that with this phrase, Kingsolver intends to create a new kind of phrase, to endow the production of food with a reverence for the life that that food embodies and, in turn, can itself create. The sonority in the tone of "food life" and the enigmatic coupling of those words express succinctly the aura of the author, who is herself a "character" in this documentation of bioregional living.

Kingsolver's emphasis on becoming a locavore (local food consumption) is ecologically sustainable for the human and the land. It boosts the local economy and promotes sustaining on fresh, tastier, and healthier food consumption. She has discussed many current issues in *Animal, Vegetable, Miracle*, such as smaller local farms concentrating on redistributing the land, growing a wider range of food species, maintaining the soil and nutrition level of crops/food growth, and promoting small-scale or local marketing systems. Being a locavore strengthens the bonds with the local community, personal relationships with the local farmers and sellers. It

helps protect the environment and reduce the carbon footprint of an individual's food purchase and consumption. Rachel Shindelar in "The Ecological Sustainability of Local Food Systems" (2015) has said that,

The most prominently voiced reasoning behind this is the reduction of GHG emissions that would result from the decrease in transportation requirements. A straightforward and plausible concept, deliberately purchasing and consuming local products has quickly become a core strategy for reducing individual and institutional GHG emissions and is perceived as the motivation behind the "locavore" movement (Shindelar 19).

But the concept of local food consumption or locavore may vary from system to system based on the region and community in which the local food system is grounded. This is also at the core of *Animal, Vegetable, Miracle* as we find the Kingsolver family moving from Tucson, Arizona to Appalachia. The success of such a bioregional living depends on *the place*. Lynch, Glotfelty, and Armbruster in the *Bioregional Imagination: Literature, Ecology, and Place* (2012) have pointed out the importance of "dwelling in place": "In places that cannot support people in this way—like Kingsolver's Tucson, a place she loved and where she raised two children—a different sort of living is the only possibility" (279). But the local food system is more ecologically sustainable, and Kingsolver seeks to emphasise that idea in the subtitle "food life". As local consumers, they choose products based on their social, economic, and ecological needs, which impacts the environment and ecological footprint of their diet. Rachel Shindelar (2015) states that "consciously choosing to participate in alternative local food systems instead of the conventional

food system is a sure way to increase your access to environmentally friendly food and to support more ecologically sustainable agricultural practices” (23).

Place Study: Kingsolver’s Fiction

The attempt to place Kingsolver’s oeuvre geographically has also been insistent. First identified as a Southwestern writer ... she became linked with various myths about Westerners and the frontier... Seeing throughout her work that Kingsolver believed optimistically in what he [Brinkmeyer] calls “miracles of community”, Brinkmeyer found that the presence of Kentucky and Appalachia was more significant to her and her work.

Linda Wagner-Martin, *Barbara Kingsolver’s World*, 2014, 75.

Appalachian Fiction: *Prodigal Summer* (2000), *Flight Behaviour* (2012)

The Appalachian Regional Commission (ARC) defines the Appalachian Region as a 205,000-square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi. It includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia (ARC website, <https://www.arc.gov/>).

Kateřina Prajznerov, in her article “Women Farmers’ Dream of Home: A Bioregional Analysis of Harriette Simpson Arnow’s Hunter’s Horn and Barbara Kingsolver’s *Prodigal Summer*” (2007), has explored the uniqueness of the southern Appalachian bioregion. It is one of the most culturally diverse and biologically productive ecosystems in North America:

The backbone of the bioregion is formed by the Appalachian Mountain chain. The line between the southern and northern parts is usually drawn in the area where glaciers... Since Southern Appalachia has not been glaciated, it is a refuge for unique, endemic plant species that went extinct elsewhere during the last ice age. The other features that contribute to the uniqueness of the Appalachian ecosystem are the nearby ocean and the predominant westerly winds that bring moist air from the Gulf of Mexico into the mountains. These rains have cloaked the westward slopes of Southern Appalachia in temperate rain forests dominated by deciduous trees. Due to the variations in altitude, precipitation, soil, groundwater, slope faces, and other factors, more than 125 tree species have been identified in this bioregion (Prajznerov 103).

Michael Branch and Daniel Philippon in *The Height of Our Mountains: Nature Writing from Virginia's Blue Ridge Mountains and Shenandoah Valley* (1998) have reflected on the writers’ sense of place in the Appalachian bioregion context. They find that places are distinctive and continuous at the same time; perceived places overlap and contain more localized places; they are constructed by individuals as well as communities, as places help to shape both individual and

community identities. For ecological perception, places are valued both for intrinsic and instrumental reasons, and are both fictional and factual (22).

The imagined places in Kingsolver's two Appalachian novels *Prodigal Summer* (2000) and *Flight Behaviour* (2012) consolidate her ecological perception of the place and her return to the southern Appalachian land. *Prodigal Summer* (2000) encapsulates the various themes that are connected to the 'place', the Zebulon County in rural Virginia, southern Appalachia. The three interwoven plots, "Predators", "the Moth Love", and "Old Chestnuts", present the intriguing parable of a *whole system* (emphasis is mine). It is an interconnected parable of human, animal, plantscape, and landscape. Berg and Dasmann in "Afterward: Reinhabiting California" (1978) state that the term bioregion usually "refers both to geographical terrain and a terrain of consciousness—to a place and the ideas that have developed about how to live in that place" (218). Kingsolver presents her "terrain of consciousness" in *Prodigal Summer*. The wildlife ranger Deanna Wolfe, the entomologist, turned farmer Lusa Maluf Landowski, retired agriculture teacher Garnett Walker and the organic apple grower Nannie Rawley, the Coyote Clan, the Chestnut Blight, the Luna Moth are characters who represent the *cultural diversity* of southern Appalachia, a *home* for both native and non-native human and nonhuman species. The imagined bioregion is interconnected with all these species. Wildlife ranger Deanna Wolfe wants to reestablish the ecological balance of the bioregion by protecting the invasive species of the coyote. Lusa Maluf Landowski's stewardship to the failing Widener family farm connects her to the land and emphasizes the farm's role as a *place* (emphasis is mine) that holds the family together. Her grandparents' loss of their family land in Palestine and Poland during the Second

World War connects her with the Widener farm as a non-native human, the “outsider”. Garnett Walker attempts to cross-breed the American chestnut with the blight-resistant Chinese chestnut, and Nannie Rawley wants to prevent Garnett walker from spreading insecticides and herbicides close to her organic apple orchard. Suzanne W. Jones, in “The Southern Family Farm as Endangered Species: Possibilities for Survival in Barbara Kingsolver's *Prodigal Summer*” (2006), comments:

In the final accounting, I think Kingsolver succeeds in showing readers that farmers, indeed everyone, need to be more place-conscious. To use Dirlik's terms, Kingsolver shows readers what a "place-based" imagination has to offer. Her ecologically enlightened characters—Deanna, the wildlife ecologist, and forest ranger; Nannie, the organic apple grower; and Lusa, the entomologist turned farmer—prosper because they understand both the human and nonhuman ecology of their bioregion (Jones 90)

Flight Behaviour (2012) is set in rural Tennessee, Appalachia. This fiction's primary focus is climate change, but it addresses more persistent issues related to the environmental crises. The bioregion is important as it depicts the migration of Monarch butterflies in the Southern Appalachia instead of Mexico. In her interview with Steve Curwood, Kingsolver states the importance of the “generational” migratory pattern of Monarchs for the survival of this exotic species. The Monarchs have to shift their “home place” because of climate change.

It’s an immense congregation of Monarch butterflies. Normally, these butterflies congregate, aggregate for the winter in the high mountains of

central Mexico. In this case, I imagined a circumstance in which their migratory system is so disrupted that they would shift their aggregation to very similar mountain in southern Appalachia. What would happen if this happened is it would be touch and go because this is a much colder winter in southern Appalachia. And most likely what is going to happen in the course of this winter is the whole species is going to freeze to death (Kingsolver in Curwood, 2012, <http://www.loe.org/>)

Patrick Murphy's article "Pessimism, Optimism, Human Inertia, and Anthropogenic Climate Change", (2014) discusses the title of the fiction. It corresponds to two plotlines, the self-awareness of the protagonist Dellarobia Turnbrow and the behaviour of Monarchs. The plot of the second behaviour focuses on the "scientific investigation of the monarchs' alteration of their historic multigenerational migration patterns" and Ovid Byron's scientific correlation between this unlikely migratory pattern and climate change and "the impacts of climate change on flora and fauna in terms of the disruption of seasonal cycles and the temperature gradients that induce relocation and possibly extinction" (158). Byron explains to Dellarobia that they are witnessing a bizarre alteration of a previously stable pattern. Due to climate change, a continental ecosystem is breaking down. Climate change has disrupted this system. It is a challenge for a scientist like Byron to get to the bottom of that phenomenon before events of the winter destroy a beautiful species and the chain of evidence.

Fred Waage, in "Exploring the Life Territory: Ecology and Ecocriticism in Appalachia" (2005), has explored the various bioregional identity given by scholars

to Appalachia as a *place*. Geologically, the Appalachian mountain chain stretches from northern Alabama to the northern tip of Newfoundland. Waage quotes James Still (1996), who considers Appalachia as a “somewhat mythical region with no recognized boundaries” (Still 683). Waage further elaborates that there is no reason why if Appalachia is mythical, the perceptions of its nature, as myth, can't be studied in relation to its physical reality as “nature”. A current active definition of a bioregion is of an area with similar topography, plant and animal life, and human culture. Eastern Kentucky and North Georgia may have some similarities in topography, biota, culture, and many unshared characteristics as well (Waage 143). From a bioregional perspective, Kingsolver’s “fictional” places of Southern Appalachia are engaged in studying the physical reality of the bioregion. They aim to project environment-related issues that are place-based but global in scope, such as conservation, protection, and restoration of ecosystems, habitats, land, biodiversity loss, pollution and toxicity of land, restoration of rivers and water bodies of a bioregion, etc.

Animal Dreams (1990) and The Poisonwood Bible (1998)

In the “Author’s Note” of *Animal Dreams* (1990), Kingsolver states the imagined place or the locale of the fiction, “Grace, Arizona, and its railroad depot are imaginary, as is Santa Rosalia Pueblo, although it resembles the Keresan pueblos of northern New Mexico. Other places, and crises, in the book, are actual” (Kingsolver i). In *Barbara Kingsolver’s World* (2014), Linda Wagner-Martin reflects

that Kingsolver connected herself with the Noline sisters and the place autobiographically.

Kingsolver takes the Homer Noline family and places them in the stunning, almost other-worldly Arizona landscape. As she drew the village of Grace, Arizona, with its mixed Spanish, Mexican, Caucasian, and native American population, she did not sentimentalize the power of community. The elaborate circumstances of the settling of the village of Grace create a magical atmosphere...the setting emphasizes another villainous spectre in Grace itself, the big business that corrupts, first the river and then, as a result, the land (Wagner-Martin 52-53).

Kingsolver describes Codi Noline's encounters with the landscape of Grace as one of the main focus of the plot. As she enters Grace, she recognizes the landscape as "home": "Grace is made of things that erode too slowly to be noticed: red granite canyon walls, orchards of sturdy old fruit trees past their prime, a shamelessly unpolluted sky. The houses were built in no big hurry back when labour was taken for granted and now were in no big hurry to decay. Arthritic mesquite trees grew out of impossible crevices in the cliffs, looking as if they could adapt to life on Mars if need be" (Kingsolver 8). Theda Wrede, in her work "Barbara Kingsolver's Animal Dreams: Ecofeminist Subversion of Western Myth" (2012), has reflected on the landscape's picturesque quality: "with the sky, orchards and canyon in the background, the town and houses in the foreground, the scene strikes the eye as a painterly flush of colours and textures" (45). But the mining, representing the capitalist world, changes the landscape to a deathscape. She describes how the dead mountain range of tailings on the lip of the mine is there for

decades and, although washed by rain, still as barren as the Sahara. The pinkish soil is like rock, corrugated with vertical ridges and eroded to a sheen. It would take a pickaxe to dent this hard, barren and dead soil. In contrast to this “poisoned ground” of Grace, Kingsolver presents the Pueblo village of Santa Rosalia as “an alternative model of living with the land” (Wrede 52). The landscape of Santa Rosalia depicts the close relationship between human and place. The village of Santa Rosalia is built on a mesa, and that blends perfectly with the landscape, constructed of the same stones. It is a village of weathered rectangles, some stacked stepwise in twos and threes, the houses all blending into one another around a central plaza. The beautiful brown village with mud plasters comes in as many hues as there are colours of the earth.

The Poisonwood Bible (1998), Kingsolver’s fourth novel, adopts an entirely different place as a setting, the Congo in Africa. The construction of the imagined place of Kilanga in the Congo is rooted in her real-life experiences in the Congo. Kingsolver visited the Congo with her family in 1963 as a part of her father’s medical exchange program. She used to maintain a small journal of her own that stored her daily exchanges in Africa as well as her growing deep connection with the land: “I was the fortunate child of medical and public health workers, whose compassion and curiosity led them to the Congo. They brought me to a place of wonders, taught me to pay attention, and set me early on a path of exploring the great, shifting terrain between righteousness and what’s right” (Kingsolver vi). Later in her fiction Africa as a place becomes what Wagner-Martin (2014) reflects as the *implied meaning of a place* in a literary work: “a place means the recognition of locale and a person’s development in, and through, it becomes a primary means of

growing, of coming to an understanding, both as individual and as community member” (43). The novel depicts the perspectives of five women characters—Orleanna Price and her daughters Rachel, Leah, Adah, and Ruth May—in alternate chapters. Jeannette E. Riley in “The Eco-Narrative and the Enthymeme: Form and Engagement in Environmental Writing” (2009) states that critics have labelled *The Poisonwood Bible* (1998) a family saga and a postcolonial novel. She further explores that Kingsolver's novel also homes in on the need to protect and work in cooperation with the land and with communities through her descriptions of the Price family's missionary work in the Congo that transgresses both land and people. Price family's interactions with the land itself, in particular the actions of Nathan Price, also enthymematically connect patriarchal power and domination over nature to a disregard for the cultural practices of the bioregion. Nathan's attempt to build a garden in the Congo exemplifies this point (86). Kingsolver vividly describes the wilderness of the Congo and its strange resistance to the domination of the land. The jungle hardly yields any abundance to feed the multitudes. The soils are fragile red laterite, and the rain is savage. Kingsolver describes how clearing this vast abundance of rainforest is like stripping an animal first of its fur, then its skin. The land “howls” as these exotic florae and fauna have managed to balance together on a trembling geologic plate for ten million years. Clearing off any part of this geologic plate makes the whole ecosphere sliding into ruin. Kingsolver says to stop clearing the land, and the balance in the ecosphere slowly returns.

Nathan Price's *building a garden* is shown in contrast with the natural practice of indigenous methods of cultivation and sustaining natural habitat that does not involve any “higher purposes of production and consumption”. As Nathan clears

the land for gardening, the jungle grows back and consumes the non-native plant species. Kingsolver reflects that in the Congo, it seems the land owns the people. Kingsolver depicts the wilderness of the Congo will bring a change to one who tries to change it: “you can’t just sashay into the jungle aiming to change it all over to the Christian style, without expecting the jungle to change you right back” (Kingsolver 618). This pronounces the failure of Nathan’s attempt and his respect for the land. Kingsolver describes the land as surrounded by pristine forests and rich with minerals like coal and diamonds and a nature that is organized a whole different way than America. The jungle closes non-natives out with its great green wall of trees, bird calls, animals breathing, all as permanent as a heartbeat to be heard in sleep. The surrounding is a thick, wet, living stand of trees and tall grasses stretching across the Congo: “In the Congo, it seems the land owns the people” (Kingsolver 340).

Conclusion

Greg Garrard, in his *Ecocriticism* (2004), quotes Wendell Berry reflecting on the story of a bucket hanging from a tree in Berry’s “The Work of a Local Culture” (1980): “A human community, too, must collect leaves and stories, and turn them to account. It must build soil, and build that memory of itself . . .that will be its culture. These two kinds of accumulation, of local soil and local culture, are intimately related” (Berry 154). Garrard further notes that “To be fully human, then, is to be a part of such a community” (Garrard 115). Kingsolver’s stories of places breathe a similar spirit, the “accumulation of local soil and local culture”. But they explore the immediate landscape and extend beyond the limits of the bioregion and

merges with larger patterns. They connect with what Heise (2008) calls “a variety of ecological imaginations of the global” (Heise 62) in her *Sense of Place and Sense of Planet: The Imagination of the Global*. Heise defines the eco-cosmopolitan approach to study the place as a more nuanced understanding of how local cultural and ecological systems are imbricated in global ones. Eco-cosmopolitanism, observes Alexa Weik, “seems to include and at the same time go beyond what Lawrence Buell has called ‘*ecoglobalist affects*’: “a whole-earth way of thinking and feeling about environmentality” (Weik 121). Kingsolver’s fiction and non-fiction are studied through the lens of this eco-cosmopolitan approach and the transition from local to glocal. Kingsolver’s works focus on place-specific issues of a bioregion and propose a path for global concern, an alternative new way to connect and live in the global biosphere. In a broader sense, there is a coalition between the local knowledge of the land, refined to address the environment to a larger scale. Kingsolver’s aim in presenting an eco-cosmopolitan sensibility about place embraces the idea, reflected by Mitchel Thomashow in “Toward a Cosmopolitan Bioregionalism” (1998): “it encompasses a perceptual wisdom that is often neglected and has been forgotten. It provides wonderful guidance for how a bioregional sensibility might approach global environmental change” (Thomashow 128).