Article

Oecumene: Repositioning Ourselves in Our Habitat

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Abstract: We should rethink individual and collective positions that promote and sustain the health of the planet and people in an era of increasing uncertainty and unpredictability concerning various threats to our lives and the livelihoods of all living species on Earth. This fundamental rethink is a prerequisite before radical societal change is implemented to respond more effectively to persistent global problems than numerous ineffective responses during the last 50 years. Our positionality, which defines and is mutually defined by fundamental values and worldviews, will influence how we anticipate or discount the risk and threats to our common future. This contribution follows a period of documentary research and personal reflections at the Ecumenical Institute at the Château de Bossey, in Switzerland. The aim was to reconsider a global, conceptual framework that acknowledges pluralism and includes an ecumenic and ecological interpretation of people–environment interrelations. Given that ecumene, economy, and ecology have the same linguistic roots in ancient Greek philosophy, combining them with core principles of human ecology creates an inclusive and wholistic framework for repositioning ourselves using eco-ethical principles and equitable and just values in a world of persistent problems that threaten life on Earth. This repositioning can begin by reconnecting children and adults with natural ecosystems, and three approaches currently applied are included.

Keywords: ecumene; fundamental values; global challenges; habitat; humanity; positionality; symbiosis; worldviews

1. Introduction

The first photographs of the Earth from outer space taken by humans were widely published in newspapers and on television screens, presenting "Blue Planet Earth". Since then, images of the "Living Planet" have been widely used to represent the inherent beauty and diversity of Nature, the pulse of life, and the finite nature of the planet in a much larger solar system. All these images, symbolized by the Apollo 11 moon landing in 1969, are taken from distant positions. From far away, they are superficially peaceful images of planet Earth, which is fraught with challenges, contradictions, and conflicts in the habitats of many living species. We have distanced ourselves from these global challenges, including accelerated loss of biodiversity, increased deforestation and desertification, ongoing climate deregulation, forced migration, and persistent poverty. We should not disconnect ourselves from our world because it is our habitat that conditions our lives. We need to rethink individual and collective positions that reconnect ourselves to our world by a logic of coexistence and coaction. This is not common but is being achieved by innovative programs in schools and community-based projects in cities north and south of the Equator. These approaches are necessary before we can promote and sustain the health of the planet and people in an era of increasing uncertainty and unpredictability concerning various threats to the living conditions of all living species on Earth.

From the beginning of this century, current generations have experienced an increase in terrorist attacks on civilians in all regions of the world [1]; the resurgence of infectious diseases, including cholera, Ebola, severe acute respiratory syndrome (SARS), and the propagation of new viruses, including variants of the coronavirus [2]; the increasing incidence of extreme weather events leading to wildfires in many countries and repeated

flooding in numerous cities; [3] and prolonged food shortages, enduring malnutrition and famine despite public subsidies for agro-industrial food systems [4].

Concurrently, dramatic environmental, financial, health, political, and social events in all regions of the world have highlighted diverse political rivalries and opposing ideologies about their origins, as well as the status of humans on Earth [5]. These events have also challenged traditional institutional structures for governance in many countries with either socialist regimes or liberal market economies [6]. Unjust propositions transfer responsibility from those with power and authority to serve the public good to laypeople while unbalanced power relations and moral responsibility remain. Moreover, distrust in empirical data and scientific knowledge has increased in a post-truth world increasingly mesmerized by unregulated social media [6].

These evolving sometimes unpredictable situations raise fundamental questions about the capabilities of *homo sapiens* to implement effective responses to persistent problems and global challenges. including climate deregulation [7]. This is not a simple challenge because anthropologist Edward Hall (1914–2009) explained that we have become disconnected from the realities of the world even though it is our habitat [8]. This article posits that we need to critically rethink what prerequisites are needed before persistent problems and evolving global challenges become socially accepted as opportunities for collective projects that respond effectively to these predicaments, rather than being interpreted as constraints for personal benefit.

In this global context, this article criticizes common academic interpretations, including many in sustainability science, that bypass the root causes of inadequate attempts to address global challenges and persistent problems—see Box 1.

Box 1. Questioning Fundamental Values

1. Why are we mesmerized by images of virtual reality accessed via social media rather than confronting real world situations, including child labor, homelessness, famine and malnutrition, and the extinction of protected animal and plant species?
2. Why have we ignored data and information accumulated over several decades that confirm climat eregulation before we admit that extreme weather events and repeated flooding in cities are now major threats to our habitat and our lives?
3. Why has dilapidating the bounty of the natural world replaced our role as custodians and our collective stewardship for communal life on Earth?
4. Why is the search for rare minerals such as lithium prioritized over providing access to affordable food, public education, community health services, and secure housing for all?
5. Why is taxing of income from paid work still often prioritized by political agendas and governments above taxing wealth of monetary gains from speculative financial markets?
6. Why is the demolition and redevelopment of slum neighborhoods by property owners overriding the basic need to provide affordable and safe housing for low-income households?
7. Why wait for the threat of power cuts during the current period of conflict to rethink how we import, produce consume, and waste energy when we have known since the oil crisis in the 1970s that our dependence on fossil fuels is short-sighted?
8. Why has the accumulation of personal wealth surpassed altruism and just concerns about the persistent hunger of millions excluded from decent work and food systems?
9. Why has a culture of fear nurtured by "alternative facts" and political ideologies replaced one of hope and communal values nurturing the common good?
Source: Author

We posit that critical ways of thinking about the collective futures of people and the planet are urgently needed. More pertinent ways and means of implementing societal change are necessary in the context of the United Nations 2030 Agenda for Sustainable Development and beyond [6]. Herein, we explain why that agenda endorses the need for societal change but does not adequately consider how that will be achieved 50 years after the first United Nations Conference on Environment and Development was held in Stockholm [9], and the Club of Rome published "The Limits to Growth" [10].

We propose that the connections between people and the planet should be publicly debated in the framework of a shared or collective habitat. There is an urgent need for a major leap from ongoing scientific research and data collection about global change to concerted action about what collective interventions and multiple kinds of resources are necessary to sustain human communities in a world of known global risks and uncertainty [6]. This need was clearly identified by the authors of "The Limits to Growth" [10]. We posit that concerted action should include repositioning humans by the inclusion of the ethical principles and fundamental non-monetary values presented in this article.

The next section presents a wholistic epistemological framework that combines and synthesizes key concepts and principles derived from the analysis of contributions by numerous scholars including Hannah Arendt (1906–1975) [11], Gregory Bateson (1904–1980) [12], Charles Birch (1918–2009) [13], Barry Commoner (1917–2012) [14], Lynn Margulis (1938–2011) [15], James Lovelock (1919–2022) [16], and Alfred North Whitehead (1861–1947) [17]. Although these scholars were educated and worked in different disciplines—anthropology, biology, chemistry, mathematics, physics and zoology—they all challenged disciplinary confinement and shared a creative capacity for integral, relational, and wholistic thinking about the position of *homo sapiens* and other living species on Earth. Unfortunately, their seminal contributions have rarely served as beacons for change in mainstream research or debate about sustainable development. The following sections explain how this shortcoming can be corrected.

2. Conceptual Frameworks and Principles

Relations between human individuals, groups, their habitat, and the environment have been discussed in architecture, history of art, literature, medicine, philosophy, theology, and scientific disciplines for centuries [18]. This shared concern across many disciplines and professions expresses a human preoccupation about the omnipresent relationship between the "*cosmos*" (planet Earth and its solar system) and "*anthropos*" (human habitat and its immediate surroundings) [19]. This archetypal relationship is a cultural and societal construct that has been interpreted in terms of worldviews, religious and spiritual beliefs, as well as scientific theories, concepts, and findings of empirical research. This fundamental relationship expresses the cognitive capacity of humans to position themselves in the world according to their ideals, motives, knowledge, perceptions, and values. The term culture, derived from the Latin word "*colere*" (to cultivate), does not have a consensual definition among anthropologists, ethnographers, linguists, or philosophers. In a generic sense, culture denotes the long-standing cognitive constructs and behavior patterns of human groups that are transmitted between generations by oral and written communication and individual and collective learning [20]. Core culture features include beliefs, knowledge, and know-how, meanings, norms, rules, symbols, traditions, and values that are not fixed geographically or temporally.

The term appropriation has etymological roots in the Latin word "*appropriare*", which means "to make one's own". Human production and consumption processes transform natural resources for individual and collective benefit. Cultivation stresses the importance of intentionality, including the quest for economic growth supported by technological innovation, industrialization, and urbanization. The sustenance of human populations is dependent on the appropriation of biological resources and other ecosystem services that are provided by the bounty of Nature. Appropriation and cultivation influence the everyday life of individuals and households, especially their regular production and consumption processes, including housing conditions, food markets, and leisure activities [21]. This following sections of this article explain why these core constituents of human culture should not be taken for granted; in essence, they are used either implicitly or explicitly when constructing human habitats that are meant to shelter and sustain human societies on Earth [18].

2.1. Critical Ontologies and Epistemologies

Conceptual frameworks of people–environment–biosphere interrelations enable individuals and groups to develop a shared understanding of the core attributes of subjects and problems that are not visible. The conceptual framework presented in this paper is a global and generic one. It affirms that planet Earth is the ecumene of all living species and it incorporates core components of our positionality, fundamental values, and worldviews. We explain why these are crucial in responding to societal challenges and persistent problems. The conceptual framework can be used to develop graphic models of subjects and problems, including those presented in Box 1, in precise localities before societal responses are formulated and implemented.

Our conceptual framework was derived from critical reflections by some authors, including Hannah Arendt, who considered the sense of being human in the world. In The Human Condition, Arendt [11] published her understanding of human life after two world wars and the Hungarian Revolution of 1956. Her contribution became a benchmark in political theory and social analysis about human agency, life in public and private domains, consumerism, work, and wealth in relation to power relations in contemporary society. Arendt criticized many academic interpretations of human activities, while Lynn Margulis rejected aloof and exclusive science she called "academic apartheid" [15]. Arendt challenged the way modern scientific contributions became "alienated from the world" and, especially, natural ecosystems. She proposed that human agency should be reconsidered in terms of human capabilities, because she felt these were neglected, in both individual activity and collective actions as well as their consequences in a rapidly changing world [11]. She argued that many humans are increasingly unable to foresee or control the consequences of their actions. We consider her contribution is appropriate during a period when there is too much inertia and too little collective action to address known threats to life on Earth. These risks include climate deregulation and the impacts of more frequent extreme weather events in specific localities; increasing loss of biodiversity and depletion of natural resources; growing incidences of non-communicable diseases, especially among urban populations; and increasing socio-economic inequalities between and within populations living in large cities.

The human condition Arendt diagnosed approximately 60 years ago has become a global urban condition for more than half of the world population this century. It is manifest in diverse ways, summarized in Box 1, including the disconnection between people and natural ecosystems; the replacement of local food harvesting by imported goods produced by industrialized food systems; and the commodification of housing by property investors in collaboration with real estate agents and built environment professionals. In these and other ways, the urban condition embodies a cultural and planetary crisis that impacts health and wellbeing. Leonard Duhl and his colleagues discussed how these consequences influence the mental and physical health of urban populations including their state of mind [22]. We argue that the global urban condition is not only a subject of study for researchers in specific disciplines nor an object for interventions by policy makers and elected officials: It is, and should be, interpreted as a societal condition that requires a shared understanding and concerted action by all those who can contribute to the formulation and implementation of societal visions and innovative projects concerning living conditions this century. This article is written from this perspective using the key concepts and principles presented in the following sub-sections.

2.2. Ecumene: An Inclusive and Relational Concept

The translation of *oikoumené*, an ancient Greek word, denotes the inhabited or habitable world. It incorporates global and universal human relations with Earth, a habitat for people and all other living species that coexist in the world. That is the meaning used here in a global ecological and ethical framework for thinking about our ecumenical Earth, represented in Figure 1. This framework applies core principles of human ecology that have been explained elsewhere, including coexistence, coaction, and collateral benefits [23].
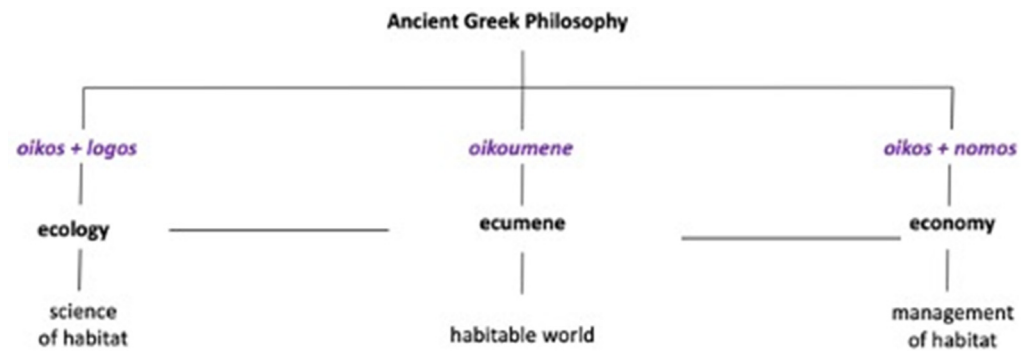
Figure 1. The common linguistic roots of ecumene, ecology, and economy are found in ancient Greek philosophy, but this shared meaning has been forgotten in many contemporary societies. (Source: Author).

Notably, ecumene and ecology have the same linguistic roots in ancient Greek philosophy, but this common foundation has rarely been explained in the publications on the Anthropocene, or human dimensions of global change [23]. The word ecology derives from the ancient Greek words *oikos* and *logos* and means science of the habitat. It is generally agreed that this term was first used in the modern world by Ernst Haeckel (1834–1919), a German zoologist, in 1866. The word ecology designates a research domain that deals with the interrelationships between organisms and their surroundings. Since the late 19th century, the term ecology has been interpreted in numerous ways. For example, in the natural sciences, botanists and zoologists use the term general ecology to refer to the interrelations between animals, plants, and their immediate surroundings [23].

The term human ecology usually refers to studies of people–environment relations [23]. The original meaning of human ecology used by Ellen Swallow Richards (1842–1911) is associated with her formulation of "euthenics", which she defined as a science for promoting human well-being by improving environmental variables in their habitat [24]. Her relational interpretation originally grounded in environmental chemistry was expanded to include numerous studies in fields such as ecosystem services, environmental health, and environmental management [25].

Contemporary contributions concerning human ecology rarely discuss religious and spiritual dimensions of people–environment–biosphere interrelations, but this lack of concern has been corrected by the field of spiritual ecology [26–28]. This field incorporates spiritual values that are related to meanings attributed to the constituents of nature and their conservation. It endorses the purpose of stewardship, a belief that humans are responsible for the world and should take care and look after it for the public good. The ecumenical movement toward worldwide Christian religious cooperation promotes this relationship between humans, other species, and Earth. Theologian Larry Rasmussen [26], for example, used ecumenical symbols to redefine spiritual dimensions of people–environment relations by referring to the symbolism of trees (from life to death, the root foundations of civilizations and the canopy of forests and pillars of the skies). These symbols have been used in all major religions and by indigenous peoples to express the mythical and mystical qualities of Nature [28].

The conceptual framework of ecumenical Earth contradicts many publications that promote mainstream development policies tied to economic growth, industrialization, globalization, urbanization, and the homogenization of the human and ecological components of socio-ecological systems. Many authors in the field of spiritual ecology, including Larry Rasmussen [26], have explained that the notion of sustainable development is not acceptable because it stems from development policies that have applied conventional economic concepts to promote growth that is assumed to reduce poverty. He stressed that these hierarchic policies have not alleviated poverty but supported increasing social inequalities and injustices, loss of biodiversity, and irreversible ecological damages. Rasmussen posited that unsustainable development during the last 200 years is the manifestation of a cosmological

and moral disorder. This can be related to the distortions described by Edward Hall [8], the alienation of humans in the world described by Hannah Arendt [11], and the public health consequences diagnosed by Leonard Duhl and his colleagues [22].

The critical positions of these authors help us understand why the World Council of Churches, an international institution that nurtures the ecumenical movement, rarely refers to or supports sustainable development. Indeed, our research in the archives of that institution in Switzerland found that sustainable development was rejected in 1974 [29]. In contrast, there is an explicit preference for sustainable communities and a nonhierarchical approach. Notably, community is interpreted in World Council of Churches documents to include both human and non-human beings. Therefore, it is a bio-centric and eco-centric concept rather than the anthropocentric one endorsed by the Bruntland Commission in "Our Common Future", published in 1987 [30]. It illustrates the dominance of a Western worldview presented in the next section; this worldview is supported by many international organizations that have endorsed the notion of sustainable development.

2.3. Worldviews: Beyond Anthropocentrism

Worldview denotes a particular conception of the world rather than a pictural analogy, which Walter Ong rejected [31]. We interpret it as a cognitive attribute that influences how individuals, groups, and societies think, interpret, communicate, and understand the world and their relations with others living in their habitat. Worldviews incorporate beliefs, knowledge, values, myths, and stories concerning planet Earth and the place of humans in it [27].

Human intellect construes and communicates worldviews that highlight different interpretations of people–environment–biosphere interrelations [23]. First, ecumenic worldviews, shared by numerous indigenous populations in different regions of the world, are wholistic and inclusive because they do not rank humans above all other living species [23,27]. This kind of inclusive eco-centric worldview is represented in Figure 2. It recognizes that all living species are subordinate to the life support systems that natural ecosystems and the biosphere have provided over millions of years by synergies, cooperation and collateral benefits. Second, biocentric worldviews are different from ecocentric ones because they focus on species rather than ecosystems; biocentrism posits that all living organisms on Earth have an intrinsic value that should not be ranked by hierarchical ordering. Third, anthropocentrism is the foundation of disjunctive worldviews, including a Western worldview, shown in Figure 2. that attributes a higher rank and a a superior position to humans in relation to all other species [23]. Moreover, this anthropocentric and exclusive worldview recognizes that humans have the capability to control, exploit, and monitor territorial ecosystems and the biosphere for their benefit. Edward Hall explained that many humans assume they are detached from and external to their habitat and they have the right to act as independent agents: "The suppression of and failure to recognize (…) situational needs in the Western world has resulted in untold distortions in the way we live, the meaning we attach to life, and how we develop" [1] (p.135).

These contrasting worldviews coexist and have become the source of disagreements and conflicts concerning how societies interpret people–environment–biosphere interrelations to sustain themselves [23,27]. Those who adhere to the disjunctive worldview often interpret culture/nature and people/environment as a mechanistic Cartesian dichotomy. Hence, they do not integrate humans in ecosystems or the biosphere; and consequently, negative human impacts on themselves and others can be discounted or ignored. Moreover, when they are admitted, then technological innovation is proposed to counteract negative impacts without addressing their root causes.
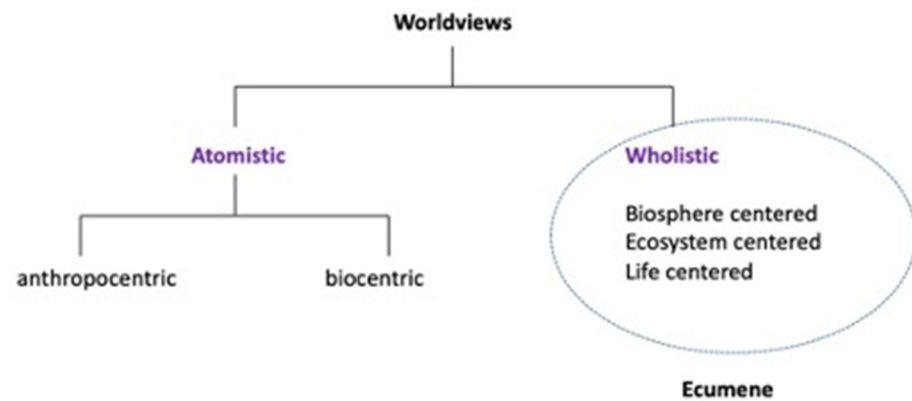
Figure 2. Worldviews are the foundations of how humans perceive, interpret, use, and value the constituents of their habitat according to cultural predispositions, social norms, and individual preferences. **Anthropocentric worldviews** position humans as the central and most important constituent of planet Earth, especially in relation to all animals and plants. Human experience, motives and values override the existence and intrinsic value of all other living organisms. **Biocentric worldviews** uphold that all forms of life on Earth have intrinsic value that are equal and should not be prioritized. Hence humans are not in a superior position to all other living organisms. Understanding and protecting species rather than ecosystems is the main concern. **Ecocentric worldviews** are wholistic and they regard all the components of ecosystems as contributors to life on Earth, rather than considering each component as a resource for human use or protection. Ecocentrism proposes an ethical framework and moral values that reject anthropocentric views about relations between humans and all other species.This diagram shows the core difference between atomistic and wholistic worldviews, and it locates ecumene in the second category. (Source: Author).

A core principle of human ecology posits that humans have the cognitive and spatial capability to position themselves both inside and outside ecosystems and the biosphere, shown in the long axis and also vertically in the center of Figure 3 [23]. This principle, known as co-action, is dynamic, relational, and variable, one that is nurtured by cultural and societal predispositions and mutual interactions between humans and all the constituents of their habitat. It underlines that sustaining humans is dependent on numerous phenomena, including how individuals and societies understand and use life support systems. This subject is developed in Section 3.
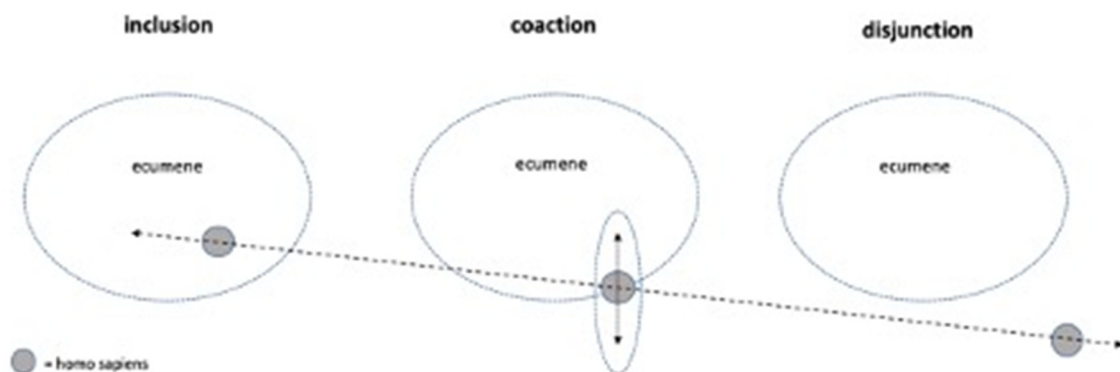
Figure 3. This figure represents the inclusive and disjunctive worldviews at the ends of an axis that situates coaction at its center. This central position represents the unique cognitive capacity of a human to position themselves in and outside of ecumene. It highlights an individual and collective capacity for change in the state of mind of being human. (Source: Author).

2.4. Fundamental Values: More Than Monetary and Utilitarian Values

Values convey the relative importance of objects, events, and situations, including global challenges and persistent problems. Charles Birch explained that values define and

are mutually defined by human choices, intentions, meanings, and goals that are embedded in human interpretations and responses to challenges and problems [13]. Individual, group, societal, and cultural values coexist in precise localities and with respect to specific themes. Some researchers have accounted for values, but they have often used the term narrowly, referring to a numerical amount, magnitude or monetary value of objects, or a quantity of material things (e.g., the stocks of ecosystems and planetary boundaries). In contrast, Charles Birch, educated in agricultural science, biology, and zoology, used his experiential knowledge from fieldwork on insects to emphasize their intrinsic value, thus, enlarging the instrumental value commonly attributed to them by many scientists, and also challenging anthropocentric worldviews. He explained that this intrinsic value is grounded in lived experience, which is the foundation of being in the world [13]. We enlarge common interpretations of value to include aesthetic, cultural, intrinsic, moral, and spiritual values because these are embedded in core principles of altruism, human rights, as well as environmental and social justice.

Too little attention is attributed to human intentions, motives, preferences, and fundamental values that frame the constitution of societal institutions and structures, the financial and industrial systems, as well as individual and collective behaviors. These core constituents of human culture define and are mutually defined by networks of individual–society–environment–biosphere interrelations [12,13]. Therefore, we argue that deciphering and acting with these core constituents of being human enables us to explain the persistence of administrative, behavioral, conceptual, political, and social barriers that are compound root causes of ineffective individual and collective actions for implementing societal change.

2.5. Symbiosis: Nurturing Coaction and Cobenefits

Symbiosis is derived from Ancient Greek *syn-*, which denotes together or with, and *-vios*, which denotes life. It literally means living together in a communal and dependent relationship that is beneficial. In the biological sciences, symbiosis has been used since the late 19th century to refer to the prolonged association between two or more organisms of different species [32]. A common example is the bee that consumes nectar from flowers then spreads the pollen, which enables the plant to reproduce and flower again. In human ecology, symbiosis denotes mutual interaction between humans and other living organisms in specific ecosystems that are shared habitats [33]. It also means that relational thinking is needed to understand "our symbiotic planet" as Lynn Margulis, a microbiologist described [15]. She defined symbiosis as the capacity for different species to live in physical contact with each other for their collateral benefit. Her contribution covered the vast range of biology from the micro-scale of bacteria to cells, micro-, and large organisms in the world. She explained that all living organisms belong to a symbiotic union on Earth thus endorsing an ecocentric worldview. She challenged Charles Darwin's theory of evolution based largely on competition between species. Her innovative research showed that this is not applicable to those species that converge and collaborate for a shared purpose of sustenance. We underscore that symbiosis can be the foundation for altruistic collaboration, relational thinking, and communal living in the ecumene for the public good. One benchmark for this kind of approach is the contribution of Alfred North Whitehead,

Whitehead, a renowned mathematician, was a pioneer in relational thinking. He associated mathematical logic and philosophy of science to formulate the notion of auto-regulation, which denotes the continual automatic adjustment or self-regulation of a biochemical, physiological, or ecological system to sustain itself. This creative capacity of living organisms was the foundation for Whitehead's relational process philosophy about being human in the world [17]. He argued that reality is grounded in experience, and the experience between humans, other species, and their immediate environment is central to our being in the world [17]. His approach is applied in Section 3 to show how children and adults can be reconnected with and immersed in natural ecosystems. This approach can become a catalyst for changing human perceptions, motives, understandings, and values

concerning all the constituents of these ecosystems, their intrinsic value and collective contribution to human habitats.

2.6. Ecologic Crisis and Techno-Addiction

In 1972, the authors of "The Limits to Growth" presented the following five key factors that they claimed directly influenced and, therefore, ultimately limited growth on Earth: population size and affluence; agricultural production methods; uses of renewable and nonrenewable natural resources; industrial production; and pollution [10]. Today, the ramifications of human population growth, uses of natural resources, as well as industrial development and technological innovation, include compound unintended impacts known as the ecological crisis.

Barry Commoner was a biologist, an academic and a key participant in the political ecology movement in North America. He proposed developing an understanding of "the total environment" and "one ecosphere". In The Closing Circle [14], he proposed that humans need to better understand "the total environment" and the influence on it by economic production and consumption processes. He argued against the Club of Rome by asserting that population growth was not the main cause of environmental pollution and ecosystem degradation. He explained these descriptors of the globalized economy were more influenced by polluting technologies and the accumulation of non-bio-degradable chemical and other toxic wastes. He proposed that all human activities should respect what he called the four laws of ecology, which we summarize as: everything is connected; everything must go somewhere; nature knows best; and there is no such thing as a free lunch [14].

Elsewhere, Stephen Boyden, a veterinary scientist, developed a bio-historical analysis for the study of past and present human situations that led him to formulate the notions of bio-sensitive societies and cultural mal-adaptations [34]. He used terms such as "techno-addiction" to highlight the replacement of symbiotic relations by the accumulation of negative impacts in what is generally claimed to be a period of progress. Here, we recall the contributions of Hannah Arendt and Leonard Duhl, mentioned earlier in this article.

2.7. Human and Planetary Health

The impacts of human societies on biophysical components of the biosphere and on humans themselves have been studied increasingly since the United Nations Conference on Environment and Development held in Stockholm 50 years ago. For example, Anthony McMichael [35], for example, proposed explicit relationships between the health of planetary ecosystems and humans, thus, presaging the recent extension of global to planetary health [36]. Planetary health acknowledges that recorded improvements in population health during the last century were achieved in tandem with large-scale degradation of natural ecosystems in all continents. Despite economic growth during that period, socio-economic inequalities between population groups have increased, especially within the geo-political boundaries of large cities.

McMichael analyzed adaptation processes used to sustain human health in response to negative influences from changes in natural and human-made ecosystems [35]. The term evo-deviation is used to refer to a general biological principle that describes living conditions of human and other species that are different from those in the natural habitat. When these differences become more significant than predicted, then irreversible behavioral and physiological maladjustments may occur [34,37]. Some physiological maladjustments during the last 10,000 years of urbanization include diseases such as coronavirus, diabetes, Ebola, typhoid, cholera, smallpox, and influenza. These are life threatening impacts resulting from evolving conditions for all living species on Earth that are difficult to predict, control, or eradicate [3,4]. They raise fundamental concerns about the capabilities of human groups and societies to promote and sustain human wellbeing and planetary health (see Box 1). These concerns should lead us to think critically about our position in the world. This involves reconnecting and understanding the mutual interaction between humans, all

other living species, and the world [33]. In Section 3, we present three approaches currently used in several countries.

2.8. Positionality: Individual and Collective Responsibilities

Positionality concerns the human cognitive capacity to locate oneself beyond geographical coordinates in the world. It incorporates how humans perceive, interpret, and attribute meanings to being in the world and whether moral values and ethical principles influence our interrelations with others. It also includes our perceptions, intentionality, and motivations that influence our sense of purpose being in the world.

Positioning ourselves is a complex process that defines and is mutually defined by our being in the world. It is a compound relational conception of ourselves rather than just a socio-spatial interpretation. Critical thinking about repositioning ourselves in the world should be grounded in ethical principles, moral values, and personal responsibility [38]. According to Maher and Tetreault, positionality is the idea that "people are defined not in terms of fixed identities, but by their location within shifting networks of relationships, which can be analyzed and changed" [39] (p. 164). Hence, it is a social constructivist concept that is cultural, relational, and dynamic, quite the antithesis of epistemic exclusion and rigid stereotypes such as social class. Positionality influences how personal perceptions, experiences, motivations, values, and worldviews influence the way people perceive and understand their habitat and the conditions of other habitats in all regions of the world. Positionality influences everyday life in an increasingly diverse multicultural world. It acknowledges differences and imbalances of influence and power between individuals and groups of different ethnicity, gender, education, nationality, religion, and worldviews.

Positionality describes how personal and group identities influence, and potentially bias, attitudes, preferences, and (mis)-understandings of real-world challenges, such as climate deregulation and extreme weather events. This is also the case for researchers whether they consider themselves as insiders or outsiders during a study on a specific situation [39]. The positioning of the researcher in relation to the cultural and political context of any study should be explicit and made known because it influences each phase of the research process, from the way the question or problem is initially constructed, designed, and conducted to how it is studied and interpreted. This framework challenges the naïve claim that researchers are independent and neutral. These claims ignore the societal context in which all research is completed. Consequently, researchers should consider the purpose of their studies and how their position influences their work [39,40].

3. Forward Look: Reconnecting Ourselves with Nature

A decade ago, Fischer et al. explained that "sustainability requires a social avalanche of unprecedented proportions; to start this avalanche, enough momentum needs to be created for a snowball effect to develop, so that appropriate measures will be widely adopted. The question is: Who or what might start this avalanche?" [41] (pp. 158–159). Their contribution on behalf of the Earth Stewardship Initiative indicated why contributions of scientific research, including sustainability science, had not served as a catalyst for societal change towards sustainability. Notably, the primary barrier to societal change is not lack of data, information, and knowledge concerning persistent problems (see Box 1). Instead, inertia is grounded in human behavior, intentionality, preferences, values, and worldviews. This is precisely why positionality is fundamentally important and should be deciphered before it can be changed. In principle, individual, group and societal change are dependent on "reflecting on deeply held value and belief systems, which fundamentally shape behavior" [41] (p. 153). Humans live in a value-laden world. Therefore, it is the personal and shared experience, intentions, perceptions, and values associated with their positionality about persistent problems and global challenges that count, not just the addition of the number of people concerned. The following subsections briefly present three approaches currently used to reconnect people with the natural ecosystems of their habitat, beginning with experiential learning in kindergartens and schools; then, forming

stewardship projects of ecosystems threatened by urbanization; and finally, nurturing community-based food growing in cities. We hope that each of these approaches will become the catalyst for much needed societal change if they are applied more widely in the future.

3.1. Learning in and with Natural Ecosystems

Alfred North Whitehead explained that any fundamental societal change about our position in the world should be supported by a radical reform of public education. He explained such radical reforms occurred after the industrial and scientific revolutions in the 19th century and they are needed again in the context of global societal challenges [17]. This section proposes that schooling can be used to reconnect children with Nature because this is a prerequisite for repositioning current and future generations in their global habitat.

The Last Child in the Woods describes how people have become disconnected from nature. In that book, Richard Louv [42] discussed the advantages of immersion in natural ecosystems that have been recognized by many civilizations since antiquity. He explains that this disconnection has not been beneficial for health, well-being, and child cognitive development. The disconnection between humans and Nature is a cultural and societal phenomenon reinforced by urbanization, as well as the formal education and training of children and adults: Personal experiences and shared learning from natural ecosystems have been evacuated and sometimes replaced by videos and simulations of natural ecosystems, noted in Box 1. This general societal trend means that children rarely benefit from learning or playing in natural environments; later in life, they have rare occasions to experience and benefit from being immersed in and benefit from natural ecosystems.

A crucial first step in repositioning ourselves in our ecumene involves reconnecting ourselves with Nature and assisting current and future generations to become aware of the beauty, diversity, and multidimensional characteristics of natural settings, such as forests, lakes, rivers, and woodlands. Although Edward O. Wilson (1986) [43] coined the term biophilia and affirmed that people are instinctively attracted to natural ecosystems and other species, many children who live in cities do not have access to public green spaces, forests, or woodlands. We propose that personal and shared awareness and understanding of natural environments should be nurtured so that children acquire and adhere to ecological ethical values that respect all living species and their habitat. The current nature deficit disorder described by Louv [42] is being corrected by innovative transnational programs, such as Kinderpedia, which enable children to spend time in natural ecosystems during hours of school (see https://www.kinderpedia.co/connecting-children-with-nature.html Accessed on 20 November 2022) These programs are grounded in experiencing natural settings, and they are a first step in repositioning humans in their ecumene. These rare programs should be expanded for children and their parents globally. Other innovative community-based programs concerning nature conservation and stewardship of natural ecosystems in some countries are contributing to this social movement.

3.2. Communal Stewardship of Natural Ecosystems

A second approach towards reconnecting with nature can and is being achieved using community-based initiatives beyond the schooling of children and adult training programs. HEART-WARE, for example, is the name of a community-based approach used by watershed communities in Japan and Malaysia to promote the conservation of natural ecosystems by the formulation and application of shared values [44]. This place-based approach can become a core component of integrated watershed management; for example, Siti Norasiah Abd Kadir and her colleagues explain the case of the community of Mukim Pasangan on the banks of the Selangor River in Malaysia [45]. Upstream, the Sengalor river is a source of water for the population of Kuala Lumpur and its rapidly urbanizing hinterlands. Kampung Kuantan village in Mukim Pasangan is an international tourist destination because it is the habitat of *Pteroptyx tener*, a unique species of synchronized fireflies. This winged beetle species glows at night providing a spectacle for observers.

Residents of Kuala Selangor have depended on the Selangor River as a resource for many generations. Residents worked as farmers or fishermen, while others used the river to transport goods using traditional boats. During the last 40 years, however, traditional lifestyles have been challenged by rapid urban and regional development on the outskirts of Kuala Lumpur. The river and water wells have been replaced by piped water supply. Modern housing has been constructed using clay or concrete bricks, ceramic tiles, and metal roofing, instead of timber framed buildings with thatched roofs. Other indigenous customs and traditions using local plants for weaving baskets and mats, thatching roofs, or making twine have been declining because it is difficult to transmit knowledge and know-how to younger generations who look towards modern lifestyles in the rapidly growing suburb. Forest leaves once used for plates and wrappers have been replaced by paper, plastic, and polystyrene substitutes [45].

Today, the Kuala Selangor Nature Park is a large mangrove conservation site and popular tourist destination easily accessible from Kuala Lumpur. The ecosystems in this park are dependent on the quantity and quality of the water in the Selangor River. However, the quality of the water has degraded because the river is being used as a dump for non-biodegradable wastes. Such irresponsible human behavior has created environmental pollution and public health risks. In response, residents have formed community groups to clean up and reduce the volume of these wastes in the river and along its banks [45]. Another community initiative involves the replanting of mangrove trees, especially berembang (*Sonneratia caseolaris*) trees, which are part of the local habitat for fireflies.

3.3. Cultivating Our Food

French sociologist Pierre Bourdieu (1930–2002) explained we need to collectively understand our *habitus*, which denotes our way of living, including personal habits and preferences, social customs and rules, and cultural predispositions that are often applied unconsciously in our daily lives [46]. Consequently, a third approach that reconnects people with natural ecosystems involves the supply of their food, which is a basic human right. However, approximately 800,000 people suffer from hunger or malnutrition [4]. There are several reasons for this persistent situation, including market failures in agro-industrial food systems, such as increases in the market price of agricultural produce in Africa and Asia since 2000, armed conflicts in several countries, and the increasing incidence of extreme weather events (e.g., drought and flooding in many regions).

Cultivating food is a creative human activity that requires knowledge and know-how concerning local ecological conditions—climate, soil, rainfall, and plants. It is also a reflexive activity that modifies the constituents of local ecosystems by using instrumental knowledge and know-how that mediate the interrelations between nature and culture [47]. It can produce edible fruits and vegetables for households and communities. There is an ongoing global movement towards re-localizing food production, processing and distributing food at regional and local levels [48]. This movement includes the reintroduction of farmers markets, communal food gardens, and the local distribution of excess produce to those populations in need. These activities are based on a broader understanding of the co-benefits of ecologically sound and economically affordable supplies of food that are beneficial for human and planetary health. They are tangible outcomes of critical, ethical, and relational thinking about the production and consumption of food in terms of food sovereignty. Via Campesina is one non-governmental movement that has promoted community and peasant farmer initiatives in many countries (See—European Coordination Via Campesina (ECVC): www.eurovia.org/ Accessed on 20 November 2022.). Community-led initiatives in many cities, including Berlin, Detroit, Singapore, and Taipei, explicitly reconnect individuals, households, and community associations with the food they consume [49,50]. Increasing numbers of these initiatives in cities cultivate fruit, vegetables, and poultry and contribute to community bonding, stronger social identity, and placemaking. These are important

co-benefits of affordable and healthy food recognized by a small but growing number of national and local authorities.

4. Conclusions

Since the first United Conference on Environment and Development and the publication of "The Limits to Growth" by the Club of Rome 50 years ago, in general, our collective response to global challenges to life support systems and our habitat on Earth has not resulted in those outcomes that were defined as objectives, goals, or targets [51]. This situation has occurred despite the accumulation of data and information at global and national levels and the introduction of guidelines and regulations by many countries.

This article has explained that repositioning ourselves should be grounded in individual and collective thinking about the status of humans and all other species in the world, and the purpose of being human in an age of artificial intelligence, genetic editing, and virtual reality. Recent history shows that scientific contributions and technological innovations are not obvious sources for more effective responses to global challenges and persistent problems; indeed the science technology tandem has been the origin of increased societal risks throughout the last century (e.g., accumulation of chemical and nuclear toxic wastes in many sectors) as Barry Commoner [14], among others, explained.

Moreover, repositioning ourselves in the world influences how we want to live together with other humans and all living species on Earth. This is fundamental in an era that has not only witnessed global population growth reach 8 billion but also an increasing number of migrants, refugees, and other adults and children displaced from their homes for survival. Repositioning ourselves in the world will influence how we respond individually and collectively to persistent problems and emergent threats to living conditions in the world. Unfortunately, despite the call of the Club of Rome and many others, during the last 50 years, many governments have maintained subsidies for fossil fuels, reduced public spending on community infrastructure, privatized public services, and deregulated commercial and financial markets. These trends in all regions of the world have been supported publicly by the reelection of national governments and local authorities that have political agendas that are anathema to the public good.

Concurrently, many international and national initiatives under the banner of sustainable development have failed to eliminate these trends, even though they damage our habitat at local, regional, and international levels. We have explained in this paper that most of these initiatives have failed to address the fundamental causes of the trends they are meant to correct. These causes are founded on a disjunction between humans, their habitat and planet Earth, which Edward Hall [8] explained and Hannah Arendt [11] deciphered. We argue that when children and adults are reconnected with and immersed in natural ecosystems, whether during schooling or community-based projects, these experiences can influence individual and collective positionality. Hopefully, this can be the catalyst for the much needed "social avalanche" requested earlier.

This article has referred to the seminal contributions of a minority group of authors trained in different disciplines who have requested a fundamental rethinking of our position in the world. They have replaced disciplinary confinement and epistemic exclusion by holistic and relational thinking combined with ethical principles and moral values that replace egocentrism by ecocentrism. In essence, in contrast to mainstream proposals for change, these contributions understand the prerequisite to rethink our ecumene and our position in the world because these are the foundations for individual and collective being in the context of global challenges and persistent problems. This rethinking should be conducted as a societal project concerning our common future.

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