

**ECO-SPIRITUAL URBAN PLANNING:  
DESIGNING SACRED CITIES IN DEFENSE OF THE RIGHTS OF NATURE**

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**ABSTRACT:** Modern urban planning has predominantly focused on economic growth and infrastructure expansion, often disregarding the inherent rights of nature. Eco-Spiritual Urban Planning proposes a transformative framework that envisions cities as sacred landscapes where natural entities are recognized as living beings with legal rights. Drawing on principles of the Rights of Nature, Indigenous land governance and biophilic design, this study examines how urban spaces can be structured to foster spiritual and ecological reciprocity. By analyzing case studies such as the legal recognition of the Whanganui River in New Zealand, the Andean philosophy of Buen Vivir, and the mandala-based urban planning of Madurai, India, this paper demonstrates how urban design can integrate sacred landscapes into city planning while upholding environmental justice and cultural resilience. This framework suggests that aligning urban development with ancestral ecological governance and spiritual principles can create cities that are not only ecologically regenerative but also culturally and spiritually meaningful. The findings underscore the necessity for urban planning to transition from anthropocentric models to biocentric frameworks that prioritize ecological integrity and spiritual well-being. Ultimately, this paper advocates for the inclusion of sacred landscapes as integral components of sustainable urban development, positioning cities as living entities that embody spiritual, cultural, and ecological values.

**Keywords:** Eco-Spiritual Urban Planning; Rights of Nature; sacred landscapes; biophilic design; environmental justice.

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**PLANEJAMENTO URBANO ECO-ESPIRITUAL:  
DESENHANDO CIDADES SAGRADAS EM DEFESA DOS DIREITOS DA  
NATUREZA**

**RESUMO:** O planejamento urbano moderno tem focado predominantemente no crescimento econômico e na expansão da infraestrutura, frequentemente desconsiderando os direitos inerentes da natureza. O Planejamento Urbano Eco-Espiritual propõe um quadro transformador que visualiza as cidades como paisagens sagradas, onde os entes naturais são reconhecidos como seres vivos com direitos legais. Baseando-se em princípios dos Direitos da Natureza, governança territorial indígena e design biofílico, este estudo examina como os espaços urbanos podem ser estruturados para fomentar a reciprocidade espiritual e ecológica. Ao analisar estudos de caso como o reconhecimento legal do Rio Whanganui na Nova Zelândia, a filosofia andina do Buen Vivir e o planejamento urbano baseado no mandala em Madurai, na Índia, este artigo demonstra como o design urbano pode integrar paisagens sagradas ao planejamento urbano, enquanto apoia a justiça ambiental e a resiliência cultural. Esse quadro sugere que alinhar o desenvolvimento urbano à governança ecológica ancestral e aos princípios espirituais pode criar cidades não apenas ecologicamente regenerativas, mas também cultural e espiritualmente significativas. Os resultados destacam a necessidade de transição do planejamento urbano de modelos antropocêntricos para quadros biocêntricos que priorizem a integridade ecológica e o bem-estar espiritual. Em última análise, este artigo defende a inclusão de paisagens sagradas como componentes integrais do desenvolvimento urbano sustentável, posicionando as cidades como entidades vivas que incorporam valores espirituais, culturais e ecológicos.

**Palavras-chave:** Planejamento Urbano Eco-Espiritual; Direitos da Natureza; paisagens sagradas; design biofílico; justiça ambiental.

## **INTRODUCTION: TOWARD SACRED URBANISM THAT DEFENDS NATURE'S RIGHTS**

Historically, urban planning has often prioritized economic growth and infrastructure expansion at the expense of ecological and spiritual integrity. This extractives' logic has led to the transformation of sacred landscapes into zones of exploitation, where nature is commodified rather than respected as a living entity (Boyd, 2017; Gudynas, 2011). In regions such as the Amazon, large-scale agribusiness, hydroelectric dams and unplanned urban sprawl have severely impacted indigenous territories, disrupting not only ecosystems but also cultural and spiritual practices linked to the land (Gudynas, 2011).

In India, the Yamuna River, revered in Hindu cosmology as a living goddess, exemplifies the detrimental effects of unchecked urban development. Industrial pollution and urban runoff have rendered the river one of the most polluted in the world, highlighting a profound disconnect between spiritual beliefs and modern urban governance (Hudson, 1993).

Amidst such scenarios of socio-environmental degradation, the concept of Eco-Spiritual Urban Planning emerges as a transformative framework. This approach envisions cities as sacred landscapes where natural entities are recognized as living beings with legal rights. By integrating principles from the Rights of Nature, indigenous governance and biophilic urbanism, it challenges the dominance of anthropocentric urban models and proposes a shift toward biocentric frameworks that respect ecological integrity and spiritual well-being (Kauffman & Martin, 2021; Beatley, 2011).

Escobar (2015) critiques the dominant development paradigm, advocating for a post-development approach that redefines urban systems as interconnected networks of ecological and spiritual sanctuaries, aligning closely with the principles of Eco-Spiritual Urban Planning. Core Principles of Eco-Spiritual Urban Planning:

*Rights of Nature:* This principle is essential in countries like Ecuador and Bolivia, where legal frameworks recognize nature as a living entity with the right to exist, thrive and regenerate (Kauffman & Martin, 2021). Such recognition aligns with indigenous cosmologies that view rivers, forests and mountains as sacred relatives rather than resources to be exploited.

*Indigenous Governance:* The Whanganui River in New Zealand, granted legal personhood in 2017, exemplifies how indigenous cosmologies are operationalized within urban systems. The river's legal status ensures its protection as a living entity, acknowledging its spiritual and ecological role within the community (Ruru, 2018).

*Biophilic Design:* This concept emphasizes the integration of nature into urban spaces, fostering spiritual and ecological connectivity. Cities designed with biophilic principles promote human-nature interactions, as seen in urban projects that incorporate green corridors, water sanctuaries, and communal gardens (Beatley, 2016).

By analyzing case studies from Madurai (India), Whanganui River (New Zealand), and Buen Vivir in the Andes, this paper explores how spiritual, ecological and legal frameworks can be harmonized within urban contexts. These cases illustrate how cities can transition from extractive, fragmented systems to interconnected networks of sacred landscapes that honor both human and non-human life (Gudynas, 2011).

The selected cases represent diverse cultural and geographical contexts, each demonstrating a distinct application of Eco-Spiritual Urban Planning:

*Madurai, India:* Integrates sacred geometry and cosmological principles into urban design, reinforcing the spiritual and ecological interconnectedness of temples, water bodies, and green spaces (Hudson, 1993).

*Whanganui River, New Zealand:* Legal recognition of the river as a living entity aligns urban governance with Māori principles of kaitiakitanga, emphasizing ecological guardianship and spiritual well-being (Ruru, 2018).

*Buen Vivir, Andean Region:* Applies indigenous governance frameworks to urban planning, prioritizing ecological restoration and cultural continuity over extractive development (Gudynas, 2011).

Through these cases, the study seeks to articulate how integrating spiritual and ecological values into urban governance can promote cities that are not only ecologically sustainable but also spiritually meaningful. This approach reimagines urban planning as a process of restoring sacred connections and fostering environmental justice.

## **1. URBANIZATION, RIGHTS OF NATURE, AND CONTEMPORARY CHALLENGES**

Urbanization has often been framed as a process of economic development and infrastructure expansion, yet it has also led to profound environmental degradation and spiritual disconnection. The contemporary urban model prioritizes land commodification and extractive

economies, often disregarding the ecological and spiritual relationships that indigenous and local communities maintain with their territories (Boyd, 2017; Gudynas, 2011).

*Extractive Urbanism and Environmental Degradation:* In regions such as the Amazon, urban expansion driven by agribusiness, mining, and hydroelectric projects has systematically encroached upon indigenous lands. Projects like the Belo Monte dam have submerged sacred territories, displaced communities and disrupted spiritual connections to rivers and forests (Gudynas, 2011). Similarly, in Ecuador, the Rights of Nature framework emerged as a direct response to such extractive models, legally recognizing Pachamama (Mother Earth) as a living entity with rights to exist and regenerate (Kauffman & Martin, 2021). This legal recognition highlights a shift from anthropocentric governance to a biocentric approach that positions nature as a rights-bearing entity. Alves et al. (2023) argues that the integration of the Rights of Nature within European legal frameworks shows a broader transition toward aligning urban governance with ecological and human rights, a perspective that echoes the principles advocated in Eco-Spiritual Urban Planning.

In New Zealand, the Whanganui River case illustrates the operationalization of the Rights of Nature within urban systems. In 2017, the river was granted legal personhood through the Te Awa Tupua Act, establishing it as a living entity with rights to health and regeneration (Ruru, 2018). This framework aligns with the Māori concept of kaitiakitanga, which emphasizes guardianship, care and spiritual reciprocity with the natural world. The river is now legally represented by two guardians: one appointed by the Māori iwi and one by the state, ensuring that both ecological and spiritual interests are protected.

*Spiritual Disconnection and Urban Fragmentation:* In India, the case of the Yamuna River illustrates the consequences of unregulated urbanization on sacred ecologies. Despite being revered as a living goddess in Hindu cosmology, the Yamuna has been reduced to a contaminated waterway, receiving untreated sewage and industrial waste from surrounding urban centers (Hudson, 1993). This spiritual disruption shows the urgent need for urban frameworks that integrate spiritual principles into environmental governance, aligning modern urban systems with ancestral ecological ethics.

*The Biophilic Approach to Urban Design:* As a response to urban fragmentation and environmental degradation, biophilic design advocates for the integration of natural elements into urban systems. Timothy Beatley (2011) emphasizes that biophilic cities prioritize green corridors, communal gardens and water sanctuaries, fostering connections between urban

residents and natural systems. This perspective aligns with the spiritual principle that nature is not merely a resource but a sacred relative, deserving of respect and protection.

Projects that incorporate biophilic principles have demonstrated tangible benefits, including improved mental health, biodiversity conservation and ecological regeneration (Houlden et al., 2018). For instance, urban parks that incorporate native plants, water bodies and meditation spaces serve as sanctuaries for spiritual reflection and ecological restoration, fostering deeper connections between residents and the living landscape.

Sung and Lee (2021) propose a framework of biophilic urbanism that integrates nature as a central actor in urban climate adaptation strategies, suggesting that such approaches can mitigate the socio-environmental disconnection perpetuated by conventional urban development.

*Integrating Buen Vivir into Urban Systems:* The Andean concept of Buen Vivir (Living Well) further illustrates how spiritual principles can be operationalized within urban frameworks. This governance model emphasizes ecological reciprocity, cultural continuity, and spiritual well-being, positioning nature as a living entity with inherent rights (Gudynas, 2011). In Ecuador, the constitutional recognition of Pachamama has redefined urban planning, mandating that cities prioritize ecological restoration, biodiversity conservation, and the protection of sacred water bodies (Kauffman & Martin, 2021).

Similarly, in Bolivia, the Law of Mother Earth extends legal rights to rivers, forests and mountains, mandating that urban development align with principles of ecological regeneration and spiritual continuity (Gudynas, 2011). This model challenges extractive frameworks that commodify nature, advocating instead for urban systems that function as interconnected ecological networks.

## **2. METHODOLOGY AND ANALYTICAL APPROACH**

This study employs a comparative case study methodology, focusing on three distinct urban contexts: Madurai in India, the Whanganui River in New Zealand, and the Buen Vivir framework in the Andean region. The selection of these cases is strategically aligned to explore how diverse cultural, spiritual, and legal frameworks operationalize the Rights of Nature and biophilic urban design principles in urban systems.

Data collection is structured around three primary methods. First, document analysis involves the examination of key legal frameworks and urban policies that recognize nature as

a legal entity. This includes pivotal legal documents such as the Ecuadorian Constitution (2008), the Bolivian Law of Mother Earth (2010) and the Te Awa Tupua Act (2017), each of which establishes a precedent for positioning natural entities as rights-bearing subjects (Kauffman & Martin, 2021; Gudynas, 2011; Ruru, 2018).

These frameworks are analyzed to assess how they conceptualize nature's rights and how these rights are operationalized within urban contexts. Second, spatial mapping is employed to examine the spatial configurations of sacred landscapes, water bodies and green corridors in the selected cases. This method provides insights into how urban planning integrates biophilic design principles and spiritual cosmologies into urban infrastructure.

Newman, Beatley, and Boyer (2017) emphasize that biophilic urbanism not only fosters ecological resilience, but also enhances socio-spiritual connectivity in urban areas, a methodological perspective relevant to the comparative case study analysis employed in this paper.

The analysis of Madurai's mandala-based urban layout, for instance, reveals how sacred geometry functions as a spatial framework that aligns architecture, water bodies, and green spaces in accordance with Vedic cosmology (Hudson, 1993). Similarly, the Whanganui River's designation as a living entity serves as a model for how water bodies can be positioned as central nodes in a biophilic urban framework that fosters ecological and spiritual continuity (Ruru, 2018).

Third, a comparative analysis is conducted to identify common patterns and divergent strategies in the implementation of Eco-Spiritual Urban Planning across the three cases. The analysis highlights how each context operationalizes the Rights of Nature in unique ways. In the Andean region, the Buen Vivir framework reconfigures cities as extensions of natural ecosystems, emphasizing cultural reciprocity and spiritual well-being over economic extraction (Gudynas, 2011; Radcliffe, 2012). In contrast, the Whanganui River case illustrates how indigenous governance frameworks can be mobilized to protect sacred rivers through legal personhood, aligning urban planning with Māori cosmology (Ruru, 2018).

Ethical considerations are essential to the paper process, particularly in the context of integrating indigenous governance frameworks into urban systems. The study acknowledges the importance of cultural sensitivity, emphasizing that the recognition of nature's rights must be grounded in principles of ecological integrity and spiritual reciprocity. This perspective aligns with Boyd's argument that legal frameworks must prioritize the wellbeing of both human

and non-human entities, treating nature as a living being rather than a commodified resource (Boyd, 2017).

Nevertheless, the study is not without its limitations. Integrating biophilic design principles into existing urban structures presents significant challenges, particularly in contexts shaped by extractive economic models which prioritize infrastructural expansion over ecological restoration. This tension underscores the need for a paradigm shift toward biocentric governance that repositions cities as sacred, interconnected landscapes where nature is recognized as a spiritual and legal entity deserving of care, respect, and protection (Beatley, 2011).

This methodological framework provides a comprehensive lens through which to analyze the spatial, legal and spiritual dimensions of Eco-Spiritual Urban Planning. By examining the diverse approaches taken by Madurai, Whanganui and Buen Vivir, the study articulates how urban systems can be reimagined as networks of sacred landscapes where rivers, forests and agricultural sites function not only as ecological infrastructures but as spiritual sanctuaries that foster cultural continuity and ecological resilience.

### **3. MADURAI: THE SACRED STRUCTURE OF MANDALIC CITIES**

Madurai, located in Tamil Nadu, India, exemplifies how spiritual cosmologies can be spatially encoded within urban systems through sacred geometry and biophilic design. The city's layout is structured as a mandala, a sacred cosmological pattern that aligns water bodies, green spaces and architectural structures according to spiritual principles. This spatial configuration not only preserves cultural heritage but also functions as a biophilic framework that integrates nature as an essential component of urban infrastructure (Hudson, 1993).

At the heart of Madurai's sacred landscape, there is the Meenakshi Temple, a monumental complex dedicated to the goddess Meenakshi and her consort Lord Sundareswarar. The temple serves as the spiritual and ecological nucleus of the city, anchoring a network of water bodies, courtyards and green spaces arranged in concentric layers, mirroring the structure of a mandala. This spatial design embodies the principles of Vedic cosmology, in which the alignment of urban structures with cosmological axes fosters spiritual and ecological continuity (Hudson, 1993).

The integration of water bodies within Madurai's urban design is particularly significant, as water is conceptualized as both a physical and spiritual entity. The Potramarai



Kulam, a temple tank located adjacent to the Meenakshi Temple, exemplifies this dual role. It serves as a sacred site for ritual purification while simultaneously functioning as a reservoir that mitigates urban flooding, illustrating how biophilic design can integrate ecological and spiritual functions (Hudson, 1993).

However, modern urban expansion in Madurai has disrupted many of these sacred water networks, transforming temple tanks into commercial spaces or landfill sites, severing the spiritual and ecological connections that once defined the city's urban fabric (Hudson, 1993). This encroachment not only degrades ecological systems but also erodes the spiritual fabric of the city, undermining the cosmological order that aligns architecture, water and nature as interconnected nodes in a sacred urban network.

Despite these disruptions, contemporary urban projects in Madurai provide potential pathways for restoring the city's sacred ecology. By reintegrating water tanks, temple courtyards and green corridors into urban planning, cities can revive ancient cosmological principles as frameworks for ecological regeneration. The restoration of temple tanks as biodiversity corridors not only mitigates urban heat but also reestablishes the spiritual significance of these water bodies, reinforcing the interconexion between urban residents and the sacred landscapes that sustain them (Beatley, 2011).

This perspective challenges extractive urban models that commodify nature, advocating instead for urban systems that function as regenerative ecosystems where rivers, forests and temples are positioned as spiritual and ecological sanctuaries. By embedding sacred geometries into urban infrastructure, Madurai illustrates how cities can operationalize Eco-Spiritual Urban Planning as a framework that transcends conventional development models, aligning urban systems with cosmological principles that foster spiritual continuity and ecological resilience (Beatley, 2011; Hudson, 1993).

#### **4. WHANGANUI RIVER: THE RIGHT TO EXIST AND REGENERATE**

In 2017, the Whanganui River in New Zealand became the first river in the world to be legally recognized as a living entity, a landmark ruling that fundamentally reconfigures urban governance by positioning natural entities as legal beings with inherent rights to exist, thrive, and regenerate (Ruru, 2018). For the Māori, the Whanganui River is not merely a body of water but a spiritual ancestor, embodying the cosmological principle of *kaitiakitanga* — a concept that signifies guardianship, protection, and care for the natural world (Ruru, 2018).

The legal status granted to the Whanganui River through the Te Awa Tupua Act was a response to decades of disputes and environmental degradation. Under this framework, the river is represented in court by two guardians: one appointed by the Māori iwi (tribe) and one by the New Zealand government. This dual guardianship operationalizes kaitiakitanga, ensuring that both spiritual and ecological interests are prioritized in urban governance (Ruru, 2018).

Awatere et al. (2013) extend the concept of kaitiakitanga to urban planning, framing cities as spaces where ecological and spiritual connections are actively protected, a perspective that aligns with the governance model implemented for the Whanganui River.

Walker et al. (2019) further highlight that kaitiakitanga embodies a form of cultural stewardship that not only restores ecological systems but also reestablishes spiritual connections to natural landscapes, reinforcing the Whanganui River's role as a living ancestor.

The recognition of the Whanganui River as a living entity illustrates how spiritual cosmologies can be integrated into urban planning, reframing rivers as central actors in urban ecosystems rather than as peripheral resources to be exploited. This framework challenges conventional models that commodify rivers as infrastructures for waste disposal or water supply, advocating instead for cities to function as interconnected networks of spiritual and ecological sanctuaries (Ruru, 2018).

The operationalization of kaitiakitanga extends beyond legal personhood, establishing a governance model that prioritizes the health and regeneration of sacred waterways. The restoration of the Whanganui River as a protected entity has catalyzed a series of ecological restoration projects, including the reforestation of riparian zones and the establishment of water corridors that function as both biodiversity networks and spiritual sanctuaries (Ruru, 2018).

The implications of the Whanganui River case extend beyond New Zealand, providing a reference for other regions seeking to operationalize nature's rights within urban systems. For instance, in Ecuador, the constitutional recognition of Pachamama as a living entity similarly establishes a legal framework for nature's rights, allowing rivers, forests and mountains to be represented in court by guardians who advocate for their ecological and spiritual interests (Gudynas, 2011).

By treating rivers as living entities with inherent rights, the Te Awa Tupua framework aligns urban systems with Māori cosmology, positioning nature as a spiritual entity deserving of care and protection. This perspective not only addresses the socio-environmental crises perpetuated by extractive urbanism but also redefines cities as interconnected networks of

sacred landscapes, where ecological health and spiritual continuity are intrinsically linked (Ruru, 2018).

## **5. BUEN VIVIR IN THE ANDES: AN ECO-SPIRITUAL NETWORK**

The Andean concept of Buen Vivir (Living Well) emerges as a transformative framework that redefines urban systems as interconnected ecological and spiritual networks, advocating for a model of urbanism that prioritizes ecological reciprocity, cultural continuity, and spiritual well-being over extractive development (Gudynas, 2011; Radcliffe, 2012). Buen Vivir is grounded in indigenous cosmologies that view nature as a living entity deserving of care and respect, challenging neoliberal urban models that prioritize infrastructure expansion and economic growth at the expense of ecological integrity.

In Ecuador, the constitutional recognition of Pachamama (Mother Earth) as a living entity in 2008 established a legal framework that positions nature as a central actor in urban systems. This legal recognition operationalizes Buen Vivir principles, advocating for cities to function as regenerative ecosystems where rivers, forests, and agricultural landscapes are treated as sacred entities with inherent rights to life, regeneration, and protection (Gudynas, 2011).

The implications of this framework are evident in Quito, where urban planning policies have been restructured to integrate sacred water bodies and biodiversity corridors as vital components of the city's ecological infrastructure. Urban wetlands, traditionally regarded as marginal zones, are being restored as sacred water sanctuaries that function as both ecological buffers and spiritual sites for ritual practices (Gudynas, 2011).

Ordóñez et al. (2021) critically assess the implementation of Buen Vivir principles in urban regeneration projects such as Guayaquil Ecológico, underscoring the tension between rhetorical commitments to ecological governance and material outcomes.

In Bolivia, the Law of Mother Earth (2010) extends these principles, establishing nature's rights as core components of municipal governance. This legal framework defines that urban planning prioritize the restoration of sacred landscapes, positioning cities as networks of eco-spiritual sanctuaries that integrate indigenous governance principles into spatial design (Gudynas, 2011).

A compelling manifestation of Buen Vivir is observed in Cusco, Peru, where the revival of pre-Columbian agricultural terraces exemplifies how spiritual and ecological

networks can be reconstituted as integral components of urban systems. The terraces, originally designed as agricultural sites aligned with cosmological principles, are now being restored as sacred water temples that serve as both agricultural sanctuaries and spiritual sites of ecological regeneration (Radcliffe, 2012).

This restoration project not only mitigates soil erosion and conserves biodiversity but also fosters cultural continuity, reinforcing the Andean cosmological principle that human and non-human life are interconnected in a sacred, living network (Gudynas, 2011). The revival of sacred terraces as water temples illustrates how Buen Vivir operationalizes indigenous cosmologies as frameworks for regenerative urbanism, positioning agricultural landscapes as vital nodes in the urban fabric.

Unlike conventional urban systems that isolate nature into fragmented green spaces, the Andean model reconfigures cities as interconnected networks of sacred landscapes where rivers, forests and agricultural terraces function as spiritual and ecological corridors that foster collective well-being (Radcliffe, 2012). By integrating the Rights of Nature into urban systems, Buen Vivir challenges extractive development models, advocating instead for cities to function as living networks of spiritual and ecological sanctuaries (Gudynas, 2011; Radcliffe, 2012).

## **6. IMPLICATIONS AND CHALLENGES FOR CONTEMPORARY URBANISM**

The integration of spiritual and ecological principles into urban systems, as demonstrated in cases like Madurai, the Whanganui River, and Buen Vivir, challenges conventional models of urban planning that commodify nature and prioritize economic growth over ecological integrity and spiritual continuity (Gudynas, 2011; Kauffman & Martin, 2021).

One of the central implications of Eco-Spiritual Urban Planning is the necessity to redefine legal and governance structures to align with biocentric principles that recognize nature's rights. The Whanganui River case exemplifies how indigenous governance frameworks can be mobilized to establish nature as a central actor in urban systems. By granting the river legal standing, New Zealand operationalizes the Māori concept of *kaitiakitanga*, positioning the river as a spiritual relative whose rights to life, regeneration, and ecological continuity must be protected (Ruru, 2018; Kauffman & Martin, 2021).

Similarly, the concept of Buen Vivir redefines urban systems as sacred ecological networks, integrating spiritual cosmologies and legal frameworks to operationalize nature's rights as foundational principles of urban governance (Gudynas, 2011). This perspective

advocates for urban systems that function as interconnected networks of water sanctuaries, agricultural terraces, and biodiversity corridors, challenging conventional urban zoning that isolates nature into fragmented green spaces (Radcliffe, 2012).

However, the implementation of Eco-Spiritual Urban Planning faces significant challenges in contexts where urban systems are dominated by extractive economic models. In regions such as the Brazilian Amazon, urban development has systematically encroached upon indigenous territories, transforming sacred rivers and forests into commodities for agribusiness, mining and hydroelectric projects (Gudynas, 2011). The construction of mega-dams has submerged vast areas of forest, severing spiritual and ecological connections to ancestral waterways (Gudynas, 2011).

This model of extractive urbanism underscores the urgency of establishing legal frameworks that protect sacred ecologies as integral components of urban infrastructure. The Ecuadorian Constitution (2008) provides a critical reference point, enshrining the Rights of Nature as a legal principle that mandates the protection and regeneration of rivers, forests and other natural entities (Kauffman & Martin, 2021).

In India, the spiritual significance of rivers such as the Yamuna has been systematically undermined by industrial discharge and unregulated urban sprawl. Despite its status as a living goddess in Hindu cosmology, the Yamuna is treated as an infrastructural site of waste disposal, revealing a profound disconnection between spiritual cosmologies and urban governance (Alley, 2019). The degradation of sacred rivers not only disrupts ecological networks but also erodes cultural continuity, undermining the spiritual connections that Indigenous and local communities maintain with ancestral waterways (Alley, 2019).

To address these challenges, Eco-Spiritual Urban Planning advocates for the restoration of sacred water bodies as ecological sanctuaries, operationalizing Indigenous cosmologies as guiding frameworks for urban governance. The restoration of agricultural terraces in Cusco, Peru, serves as a compelling model for how sacred landscapes can be reconstituted as vital components of urban infrastructure (Radcliffe, 2012).

However, establishing urban guardianship frameworks that recognize nature's rights faces substantial resistance from political and economic interests that prioritize infrastructural development over ecological restoration. The legal status of the Whanganui River was met with skepticism from developers who viewed the framework as a hindrance to economic expansion, framing the river's rights as an obstacle to resource extraction and land development (Ruru, 2018).

In Ecuador and Bolivia, the operationalization of nature's rights has faced backlash from extractive industries that regard sacred landscapes as exploitable commodities, highlighting the tension between biocentric governance and neoliberal urbanism (Gudynas, 2011; Radcliffe, 2012).

Navigating these challenges requires the strategic integration of Indigenous governance systems, whose cosmologies conceptualize nature as a living ancestor rather than a resource to be exploited. In the case of the Whanganui River, the dual guardianship structure — with one guardian appointed by the Māori iwi and one by the New Zealand government — illustrates how Indigenous governance can be integrated into municipal planning to protect sacred waterways from commercial exploitation (Ruru, 2018).

Clark et al. (2019) explores the complexities of granting legal personhood to natural entities, examining governance challenges and the potential for conflicting interests between economic development and ecological stewardship.

Ultimately, the implications of Eco-Spiritual Urban Planning extend beyond the specific cases analyzed, suggesting that urban systems can be reimagined as interconnected networks of sacred landscapes where nature is positioned as a legal and spiritual entity deserving of protection and care. This framework advocates for urban systems that align with cosmological principles of reciprocity, regeneration, and spiritual continuity, offering a regenerative model for cities seeking to transition from extractive, fragmented systems to networks of sacred, interconnected landscapes (Gudynas, 2011; Kauffman & Martin, 2021).

## **CONCLUSION: CITIES AS SACRED TERRITORIES**

The cases examined — Madurai, Whanganui River, and Buen Vivir — illustrate diverse approaches to integrating spiritual and ecological principles into urban systems, challenging extractive models of urbanism that commodify nature as a resource and marginalize spiritual and ecological connections (Gudynas, 2011; Kauffman & Martin, 2021).

In Madurai, the mandalic structure centered around the Meenakshi Temple exemplifies how sacred geometry can function as a guiding principle for urban design, aligning architectural structures with cosmological principles that emphasize spiritual continuity and ecological balance (Hudson, 1993). The city's spatial configuration, structured as a living mandala, integrates water tanks, temple courtyards and green corridors, operationalizing biophilic design

as a framework that fosters both ecological regeneration and spiritual connection (Beatley, 2011).

Similarly, the Whanganui River in New Zealand represents a radical shift in urban governance, establishing a framework in which rivers are treated as legal beings with rights to life, regeneration and spiritual continuity. This perspective aligns with Māori cosmology, positioning rivers as sacred ancestors whose health is directly connected to the wellbeing of the community (Ruru, 2018). The Te Awa Tupua Act operationalizes the principle of kaitiakitanga, establishing dual guardianship to ensure that both ecological and spiritual dimensions are protected (Kauffman & Martin, 2021).

The implications of this framework extend beyond New Zealand, suggesting that other urban systems can integrate legal personality for natural entities as a mechanism to protect sacred ecologies. In Ecuador and Bolivia, the recognition of Pachamama (Mother Earth) and the Law of Mother Earth similarly operationalize the Rights of Nature as foundational principles of urban planning, positioning cities as sacred networks of living water bodies, forests and biodiversity corridors (Gudynas, 2011; Radcliffe, 2012).

The Andean concept of Buen Vivir further illustrates how cities can function as sacred ecological systems, aligning with Indigenous cosmologies that position rivers, agricultural terraces, and forests as vital nodes in a broader spiritual network. Wehi et al. (2023) argue that cultural stewardship through Indigenous practices such as kaitiakitanga fosters urban spaces that function as interconnected networks of sacred landscapes, aligning with the Buen Vivir framework's emphasis on ecological reciprocity and spiritual wellbeing. In Cusco, Peru, the restoration of agricultural terraces as sacred water temples exemplifies how Buen Vivir can be operationalized as a regenerative framework, integrating spiritual and ecological dimensions into urban systems (Radcliffe, 2012).

Despite the transformative potential of Eco-Spiritual Urban Planning, significant challenges remain in operationalizing these frameworks within urban systems dominated by extractive economic models. In contexts such as the Amazon and the Yamuna River in India, urban development driven by agribusiness, mining, and infrastructure projects has systematically disrupted sacred waterways, severing spiritual and ecological connections to ancestral territories (Alley, 2019; Gudynas, 2011).

Addressing these challenges requires a paradigm shift that repositions nature as a central stakeholder in urban governance, operationalizing Indigenous cosmologies as guiding frameworks for urban systems. This approach demands a fundamental reconfiguration of urban

governance structures to align with biocentric principles that recognize nature's rights, positioning rivers, forests and agricultural sites as legal and spiritual entities deserving of care, respect and legal protection (Kauffman & Martin, 2021).

Moreover, the implementation of urban guardianship frameworks that operationalize nature's rights needs strategic alliances with indigenous governance systems, which conceptualize nature as a living ancestor rather than a resource to be exploited. In the case of the Whanganui River, the dual guardianship structure established by the Te Awa Tupua Act — with one guardian appointed by the Māori iwi and one by the New Zealand government — illustrates how indigenous governance can be integrated into municipal planning to protect sacred waterways from commercial exploitation (Ruru, 2018).

The implications of these frameworks suggest that Eco-Spiritual Urban Planning can function as a regenerative model for cities seeking to transition from extractive, fragmented systems to networks of sacred landscapes. By reimagining cities as living ecosystems where rivers, forests and agricultural terraces function as spiritual and ecological sanctuaries, this framework advocates for urban systems that align with cosmological principles of reciprocity, regeneration and spiritual continuity (Gudynas, 2011; Kauffman & Martin, 2021).

Ultimately, Eco-Spiritual Urban Planning challenges the dominant neoliberal paradigm of urbanism, advocating for cities as networks of sacred, living landscapes where nature is not only a legal person but a spiritual relative deserving of care, respect, and protection. This perspective not only redefines urban systems as regenerative networks of spiritual and ecological sanctuaries but also positions indigenous cosmologies as guiding frameworks for urban governance, operationalizing nature's rights as foundational principles of a new urbanism that transcends extraction and commodification, fostering ecological health, cultural continuity and spiritual alignment (Gudynas, 2011; Kauffman & Martin, 2021).



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