

# Cosmologies of totality and material practices in the Umbanda National Sanctuary

Cosmologias da totalidade e práticas materiais no Santuário Nacional da Umbanda

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## Abstract

Urban conservation requires ontologies transcending the society-nature dichotomy. In Brazil, Afro-Brazilian religions configure Sacred Natural Sites where protection is an ethical imperative. This study investigates how Umbanda's cosmology at the Umbanda National Sanctuary (Sanu) establishes a relationship of totality, moving beyond the utilitarian view of ecosystem services. Samu is part of the Pedroso Municipal Natural Park (Santo André, State of São Paulo). Using environmental anthropology and 12 interviews, the study shows that biophysical attributes are perceived as the embodiment of the sacred and a support to Axé. We conclude that ritual bonds configure an ethics of environmental care; therefore, public management should recognize these cosmologies in environmental governance.

**Keywords:** cosmologies; umbanda; sacred natural sites; Pedroso Municipal Natural Park; environmental anthropology.

## Resumo

A conservação urbana exige ontologias que transcendam a dicotomia sociedade-natureza. No Brasil, religiões de matriz africana configuram Sítios Naturais Sagrados onde a proteção é um imperativo ético. Este estudo investiga como a cosmologia da Umbanda no Santuário Nacional da Umbanda (Sanu), que integra o Parque Natural Municipal do Pedroso (Santo André/SP), estabelece uma relação de totalidade, superando a visão utilitarista dos serviços ecossistêmicos. Via antropologia ambiental e 12 entrevistas, os resultados demonstram que atributos biofísicos são percebidos como corporificação do sagrado e suporte do Axé. Conclui-se que vínculos rituais configuram uma ética de atenção ao ambiente, sendo essencial que a gestão pública reconheça essas cosmologias na governança ambiental.

**Palavras-chave:** cosmologias; Umbanda; Sítios Naturais Sagrados; Parque Natural Municipal do Pedroso; antropologia ambiental.

## Introduction

The current hegemonic development framework, tied to economic growth and the exploitation of natural resources, has triggered socio-environmental imbalances (Veiga, 2015). Given the current climate emergency, it is crucial to identify and implement ways to prevent the climate crisis impact forecasts made by the Intergovernmental Panel on Climate Change (IPCC) from materializing (Pörtner et al., 2022). One such approach lies in nature and biodiversity conservation, which entails the demarcation of territories and species that must be maintained and protected as they are, or even the ecological restoration of previously degraded areas (ibid.).

Conservation itself can take various forms (Díaz et al., 2015a), one of which lies in reclaiming the values, ethics, and culture of traditional peoples, who care for and coexist with nature in ways that diverge sharply from established neocolonial and neoliberal logics (Miguel, 2022; Souza, 2000). Recently, these two logics, combined with a climate denialism present in the Brazilian scenario since 2007 and reinforced by the scope of post-truth during the Brazilian government from 2019 to 2022, had been increasingly strengthened within the national political landscape (Jacques, 2022; Miguel, 2022). Brazilian laws governing Conservation Units (UCs) underwent rollbacks – known as protected area downgrading, downsizing, and degazettement (PADDD) – which altered their boundaries and categories, ultimately prioritizing economic exploitation over environmental conservation and the cultures of traditional peoples (Bernard, 2020). Furthermore, environmental enforcement agencies, such as the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the Brazilian Institute for the Environment and

Renewable Natural Resources (Ibama), saw their budgets slashed during the federal government's previous administration (Bragança, 2019; Oliveira, 2021).

Furthermore, deforestation has increased in recent years, even within UCs (Dantas & Manzano, 2021; Peixoto, 2022). This trend contradicts evidence demonstrating the necessity of environmental conservation for the preservation of current and future generations, reinforces the climate denialism policy platform of the Jair Bolsonaro administration (2019–2022) (Bernard, 2020; Bragança, 2019; Oliveira, 2021), and runs counter to the tenets of the National System of Nature Conservation Units (SNUC), which sustains that these areas must be conserved due to their socio-ecological importance (Bernard, 2020).

It is within this context of climate urgency – and the search for solutions that escape, at least partially, the hegemonic logic that views nature through its material utility and in opposition to culture (Oliveira, 2007) – that this article seeks to understand why and how practitioners of Brazilian African-derived religions care for and relate to nature and biodiversity conservation. Although the relationship between nature conservation and non-material aspects is widely studied internationally (Irvine et al., 2019), with many initiatives coordinated by the International Union for Conservation of Nature (IUCN), few Brazilian initiatives are well known or studied (Fernandes-Pinto & Irving, 2018).

At the same time, the relationship between Brazilian African-derived religions and nature is also widely studied (Abílio, Silva & Silva, 2020; Linares, Trindade & Costa, 2022; Moraes, 2020); yet, little is known about environmental conservation areas whose institutional management and governance are carried out by these same religions (Fernandes-Pinto & Irving, 2018).

On the contrary, the literature documents the negative environmental impact of certain religious rituals within conservation areas, especially when performed without sustainable management guidelines (Corrêa, Moutinho-da-Costa & Barros, 2013). From this perspective, practitioners are frequently stigmatized as external polluting agents and, at best, reduced to passive targets of environmental education programs (*ibid.*). However, such a perception overlooks the complexity of the Brazilian socio-urban structure, ignoring how disparities of power and class within the capitalist system shape these groups' access to and relationship with the environment (Souza, 2000). This group – which had little to no power over how Brazilian cities would be organized and was pushed away from natural areas by urban growth – now faces judgment for being an alleged polluting agent (*ibid.*).

For these reasons, this article presents a case study of the National Sanctuary of Umbanda (Sanu), located within the Pedrosa Municipal Natural Park (PNMP) in the municipality of Santo André, SP. The study sought to understand the relationship between Nature's Non-Material Contributions (NMCs) and the practice of Umbanda at Sanu. These contributions refer to a more plural definition of cultural ecosystem services, as recommended by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (Díaz et al., 2015a; Díaz et al., 2015b).

Through this, the study seeks to understand how the organization and governance of that space are shaped. This dynamic involves the government, represented primarily by the Municipal Environmental Sanitation Service of Santo André (Semasa) – the management organization of PNMP – and the Umbanda Federation of the Greater ABC (FUGABC), the civil society organization that manages Sanu.

This involves recognizing practices that contribute to a more socio-environmentally responsible and sustainable management, insofar as these groups are viewed as protagonists and agents endowed with the capacity for more democratic governance, prioritizing climate justice (Conrado, Nazar & Capelobo, 2020; Louback, 2020).

Furthermore, understanding the practices at Sanu requires the contribution of the Anthropology of Religion and Environmental Anthropology to overcome the modern-Western dichotomy between culture and nature. As Latour (2004) proposes, different human collectives configure worlds where natural elements possess agency. In African-derived religions, this relationship is mediated by a cosmogony of totality. This is not an environmental defense strategy designed to secure benefits (a utilitarian view), but rather an ontology where the landscape is the living body of the sacred. Vegetation, soil, and water are material elements that express the spiritual dimension; therefore, preservation is not an external objective, but the intrinsic result of a religious practice that can only exist through the integrity of the ecosystem (Santos, 2008).

## Nature's Non-Material Contributions to People

The term Nature's Contributions to People (NCP) aims to expand and render more plural and inclusive the definition of ecosystem services (ES), particularly regarding immaterial or non-material contributions that cannot be classified as Cultural ES (Seixas et al., 2019). Examples of NCP that are not classified as Cultural ES include: learning and inspiration; physical and psychological experiences; and supporting identities (*ibid.*).

Thus, NCP can be subdivided into three categories: (1) regulating; (2) material; and (3) non-material. The first, which features definitions similar to the regulating and supporting ecosystem services as defined by the MA (2005), differs from the other types of NCP by presenting functional and structural aspects of organisms and ecosystems that modify the environmental conditions of human life. Examples of Regulating Nature's Contributions to People include: water purification, climate regulation, and soil erosion regulation (De Castro, 2019).

The second type, material contributions, consists of substances, objects, or other elements from nature that sustain the physical existence and infrastructural foundations essential to human society (*ibid.*). Consequently, they share a strong synergy with Provisioning ES (MA, 2005). Examples of Material Nature's Contributions to People include: food of animal and plant origin, energy production, housing construction materials, and ornamentation, among other contributions (*ibid.*).

Finally, the third type, non-material contributions, is related to nature's contributions to quality of life within a subjective, individual, or collective human dimension (*ibid.*). Cultural ES share common ground with part of Nature's Non-Material Contributions to People; it can be argued that while all Cultural ES are

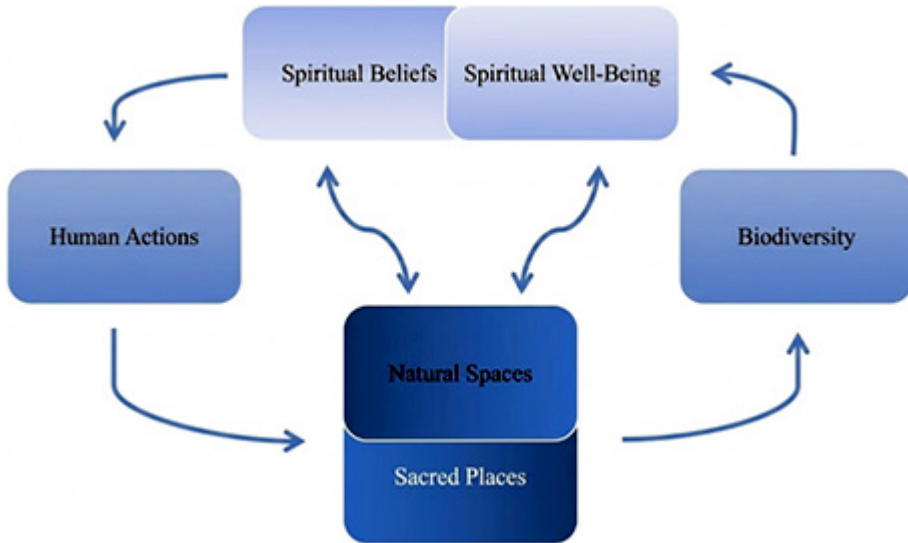
encompassed within non-material contributions, not all non-material contributions are included in the definition of Cultural ES (Seixas et al., 2019). Thus, some examples of this type of contribution include: animals in recreational fishing, rituals, hunting, the shade of a tree, and landscapes as sources of inspiration and spirituality (De Castro, 2019). This specific type of contribution is the focus of this article, particularly regarding its relationship to spirituality, religiosity, and the conception of nature as sacred.

## Sacred Natural Sites

Sacred Natural Sites (SNS) are natural areas that hold a special meaning for local communities, generally linked to myths or religious rituals that provide spiritual well-being (Irvine et al., 2019). Because these areas possess a profound symbolic value for these communities, these locations ultimately become genuine repositories of biodiversity (*ibid.*).

In this manner, spiritual values and their associated taboos can help preserve their biodiversity, while the conservation of these sites helps preserve local cultures and their traditional ecological knowledge (*ibid.*). These relationships between spiritual beliefs, nature, biodiversity, and spiritual well-being are outlined in Figure 1.

Figure 1 – Relationships between spiritual beliefs, nature, biodiversity, and spiritual well-being



Source: Irvine et al. (2019).

## The Brazilian context

The 1988 Constitution represented a milestone for the Brazilian environmental agenda, especially through Article 225, which establishes the right to an ecologically balanced environment as a common good. Legally, this consolidated shared responsibility: the duty to defend and preserve the environment rests not only on the State (at its federal, state, and municipal levels) but also on society as a whole (Duarte, 2005). This framework decentralizes environmental management, imposing direct obligations for the conservation of natural resources on both public authorities and civil society.

In the 1990s and early 2000s, Brazil began to position itself internationally as a central agent in the environmental debate, driven

primarily by the Rio-92 Earth Summit and the World Social Forum in 2001 (ibid.). Within this context, the SNUC was established by Federal Law No. 9,985/2000 (Brasil, 2000), which regulates Article 225, Paragraph 1 (subsections I, II, III, and VII) of the 1988 Constitution, with the primary objective of regulating standards for the creation, implementation, and proper management of new Protected Areas (PAs – referred to as Conservation Units, or UCs, in Brazil) (Silva et al., 2022).

Beginning in the 1990s, environmental conservation policies shifted their focus away from scenic “monumentality” or “exceptionality” to prioritize ecological integrity and biodiversity (Zanirato, 2010). This shift reflects the guidelines of the Rio-92 Earth Summit, which consolidated the concept of sustainable development by treating the environment as a vital and finite

system rather than merely an aesthetic backdrop (Duarte, 2005). Concurrently, the emergence of the World Social Forum broadened this debate, pushing conservation beyond a strictly biocentric approach to incorporate social justice and the participation of local communities in management processes (ibid.).

Despite this, several authors report a gulf between scientific thought, biodiversity and nature conservation research, and data-driven guidance, and actual decision-making (Silva et al., 2022). Furthermore, a significant gap exists between environmental conservation laws and legal frameworks and the actual implementation of environmental public policies in Brazil (ibid.).

The SNUC was established by Federal Law n. 9,985/2000 (Brasil, 2000), with its primary objective being to regulate standards for the creation, implementation, and proper management of new Protected Areas (PAs) (ibid.). These areas are defined as portions of the national territory and their environmental resources with clearly delineated boundaries, legally instituted by the State under a special regime that guarantees their protection, and are divided into two major groups: strictly protected areas and sustainable use areas (ibid.).

In strictly protected areas, the goal is to preserve nature, allowing only minimal and indirect use of natural resources (Zanirato, 2010). Among the types of strictly protected areas established by Federal Law n. 9,985/2000 (Brasil, 2000) are Natural Parks, whose objective is the preservation of natural ecosystems of great ecological relevance and scenic beauty, enabling the conduct of scientific research and the development of environmental education and interpretation activities, recreation in contact with nature, and ecotourism. Conversely, in Sustainable Use Units, the aim is to reconcile nature conservation with the sustainable use of a portion of their natural resources (ibid.).

The management of the SNUC is integrated into the structure of the National Environmental System (Sisnama), organized across different jurisdictional levels. The National Environmental Council (Conama) acts as an advisory and deliberative body, responsible for monitoring the system's implementation. The Ministry of the Environment and Climate Change (MMA) serves as the central body, responsible for technical coordination. Meanwhile, the execution of policies and the administration of PAs fall under the purview of ICMBio and Ibama at the federal level, alongside state and municipal agencies, which implement guidelines and support the creation of new protected areas within their respective jurisdictions (Brasil, 2000).

Each Protected Area (PA) must have a Management Plan. This is a fundamental instrument for PA management, as it establishes guidelines and conditions for the protection, conservation, use, and management of the natural resources present within it. Furthermore, the Management Plan must include a characterization of the territory, highlighting its biotic, physical, socioeconomic, and legal-institutional aspects, which provide the foundation for zoning and management programs. These plans must be grounded in participatory and shared planning between public authorities – represented primarily by the PA's managing body – and civil society (São Paulo, 2021).

The introduction of non-native (exotic) species is prohibited in most Protected Area (PA) categories, such as National Parks. The legislation provides strict exceptions only for cases where the use of such species is indispensable to the infrastructure, administration, or management of the area – such as in the restoration of degraded soils or the maintenance of service areas – provided that these activities are explicitly authorized in the PA's Management Plan (Brasil, 2000).

The legislation allows Protected Areas (PAs) to generate revenue from their assets. In strictly protected areas, commercial exploitation is restricted to services and the use of the area's image, such as in ecotourism. Conversely, in Sustainable Use Units, the commercialization of products and by-products derived from natural and biological resources is also permitted, provided they are managed sustainably and outlined in the Management Plan (ibid.).

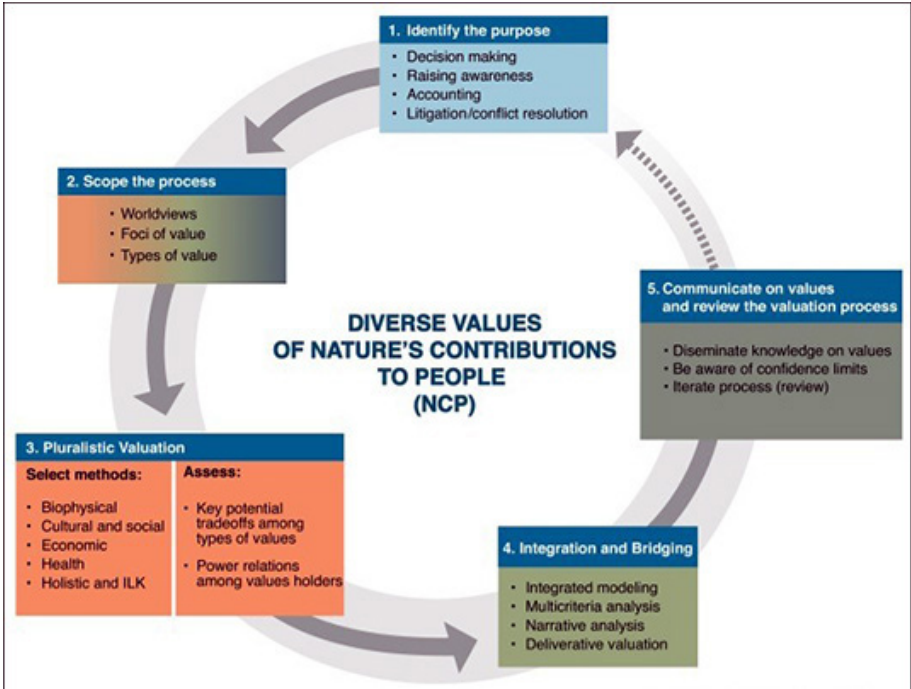
## Methodology

The methodology of this study was based on the framework proposed by Pascual et al. (2017), which establishes a practical roadmap

for the plural valuation of NCP. This approach is structured as a cyclic and iterative process composed of five main steps: 1) identifying the purpose of the valuation; 2) defining the scope (considering worldviews and value foci); 3) applying diverse methods (biophysical, cultural, economic, etc.); 4) integrating these values through the lens of power relations; and 5) communicating the results for review and decision-making. The diagram of this methodological flow, applied to the analysis of Umbanda practices within the studied territory, is detailed in Figure 2.

The initial stage of the process, the Identification of Purpose, consists of deepening the knowledge regarding NCP within the Sanu. The central objective is to raise awareness among the scientific community and

Figure 2 – Practical approach to pluralistic assessment and valuation



Source: Pascual et al. (2017).

environmental managers about the relevance of these immaterial values, which are often neglected in traditional management models. This approach is justified by the need to provide theoretical and practical insights for more inclusive governance models in conservation spaces, recognizing the plurality of uses and meanings within these territories.

Thus, the specific approach of this work is a single-case study (YIN, 2001) of the Sanu, located within the PNMP in the municipality of Santo André, Metropolitan Region of São Paulo (RMSP). Complementing the case study, a valuation of Non-Material Nature's Contributions to People was conducted, following Scholte, Teeffelen, and Verburg (2015).

For the second step, defining the scope, the goal was to capture how Umbanda practitioners, within the context of the Sanctuary, value nature and how they perceive the contributions it provides to their religious practice and their lives. Concurrently, the study sought to verify how other relevant actors in this context perceive the practices of Umbanda followers in their contact with nature, as well as to understand the relationship between the Sanctuary and public authorities, represented by the management of the PNMP, which is carried out by Semasa.

In this regard, a subjectivist paradigm (Burrell and Morgan, 2019) was adopted, seeking to understand reality through the subjectivity of the individuals and contexts under study. This perspective assumes that the meanings assigned by people may contain patterns and generalizations, as well as contradictions, tensions, and irregularities, and aims to generate knowledge that is applicable, though not necessarily replicable across any context.

In the third stage, regarding pluralistic valuation, the research employed a multidimensional approach to capture NCP.

The cultural and social strand focused on the collective and symbolic dimension of nature for Umbanda practitioners; the holistic perspective sought to understand the systemic interdependence between ritual elements and ecological cycles; the local knowledge axis valued the traditional knowledge accumulated by the religious community regarding the territory. Additionally, the process evaluated power relations, analyzing how asymmetries among different local actors (religious practitioners, managers, and environmental agencies) influence the legitimacy and weight of each value in the decision-making process.

For the fourth step, integrating and uniting assigned and perceived values of nature, a narrative-based approach was pursued within a qualitative research perspective, drawing on local public experiences, scientific information, and the knowledge of those who founded and those who frequent the Sanu. The aim was thus to recognize and respect different worldviews. To achieve this, an analysis of the interviews was conducted, triangulating them with field observations and both provided and public documents from the Sanu, the PNMP, and Semasa.

For the final step of the model by Pascual et al. (2017), communicating values, this article is expected to bring relevant contributions to local actors. The goal is to achieve this by sharing the article with them, hoping it will serve as a starting point for new decision-making processes and potential further studies within both the Sanu and the PNMP.

To analyze the interactions, beneficiary characteristics, and socio-cultural values, 12 semi-structured interviews were conducted. The selection of interviewees followed the purposive (or typological) sampling approach, aiming to cover the diversity of perspectives regarding the territory of the Sanu and the PNMP. The profiles were divided into four strategic groups:

1) Public management (3): Representatives from Semasa/PNMP and the Tourism Management Office to understand the institutional perspective and park management;

2) Organization and governance of the Sanu (2): Founders and members of the FUGABC to understand internal management and the history of occupation;

3) Leaders and practitioners (4): Leaders of Umbanda houses and users of the space, the primary focus of the NCP;

4) Experts (3): Academics with and without prior contact with the Sanu to provide a technical and anthropological counterpoint on the subject.

The sample size (n=12) and the diversity of actors allow for data triangulation, contrasting the perception of users with the technical perspective of managers and experts. For ethical reasons and due to the history of religious intolerance against African-derived religions, all identities and religious institutions were anonymized to ensure the safety and spontaneity of the accounts. The strategies for accessing interviewees included: active search; professional networks; snowball sampling; and direct approach in the field.

## Results

The genesis of the Sanu is tied to the trajectory of its founder, Babalawo Ronaldo Antônio Linares, who sought a space for religious practice free from stigmas and in closer connection with nature deities. According to his account, between the 1950s and 1960s, ritual practices occurred predominantly in areas of dense vegetation, such as the Village of Paranapiacaba (Santo André) and other remnants of the RMSP. This displacement toward the fringes of the metropolis was a

direct response to the rapid urbanization process of the time, which frequently associated environmental degradation and pollution with the idea of industrial progress. Due to social stigma, religious practices took place in a fragmented and secretive manner, lacking a defined spatial organization. This lack of fixed territoriality resulted in dispersed environmental impacts, given that clearing paths and disposing of offerings occurred in different areas for each ritual, preventing waste management.

He then began to notice, while conducting his rituals near the quarry where the Sanctuary stands today, that it was being decommissioned. In addition to his own Umbanda house, other groups – from both Umbanda and Candomblé – began frequenting the site as well. Initially, they would visit on certain weekends, having a tacit authorization from the quarry's security guard to enter and conduct their studies and rituals. From this approximation between different houses emerged the idea of holding gatherings at one another's centers to exchange experiences and strengthen ties among those who share very similar worldviews, yet worldviews that are profoundly different from the rest of society.

Thus, between these gatherings, the idea arose to form a religious federation, which was formalized in 1972. Since then, FUGABC has had two main functions: to maintain the space now known as the Sanu and to standardize, as much as possible, Umbanda religious practices. Prior to this, each center practiced the religion in its own way, and many terreiros – as is still the case today – were formed through splits between priests and their initiates (pais and filhos de santo). Consequently, many of them ended up creating their own houses to practice their faith in the way they deemed best. However, this situation resulted in many pais de santo having incomplete training in the religion. For this reason, the idea emerged to offer sacerdotal

training courses for Umbanda practitioners through FUGABC. A photograph of the Sanctuary in 1978, a few years after its inauguration, was presented by the creator of the Sanu (Figure 3).

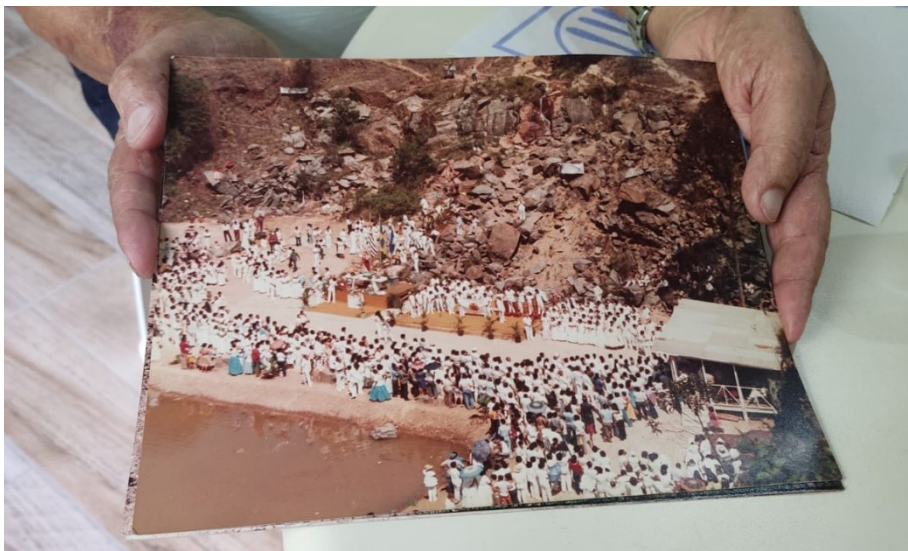
By 1985, the Sanctuary area was formally leased to the federation by the Municipal Government of Santo André. Consequently, FUGABC began conducting its Umbanda Sacerdotal Training Course at the site. The Ecological Sanctuary of the Serra do Mar, as it was called at the time, began operating as a center for Umbanda practices and rituals, enabling various centers of Afro-Brazilian religions from the RMSP to conduct their spiritual works there. By that time, the Sanu was already hosting visitors from across the country, as well as international guests.

Formally, the Sanctuary established itself within the PNMP through a revocable use permit granted by Municipal Decree n. 11,176/85, which was intended solely '[...] for the custody

and reforestation of the old quarry area' (Santo André, 1985) – after all, it was already observable that the area was regenerating due to FUGABC's efforts. However, owing to religious intolerance and mistrust from a new municipal administration toward the Sanu, the decree was revoked in 1991 (Santo André, 1991). FUGABC subsequently remained in the territory without official status until the passage of Municipal Law n. 9,114/2008 (Santo André, 2008), which granted a Real Right of Use Concession over an area of 0.64 km<sup>2</sup>, equivalent to 7.42% of the PNMP's total area (Semasa, 2016).

A brief description of the PNMP is warranted here. It constitutes the largest remaining tract of Atlantic Forest in the Grande ABC region, situated within the Upper Tietê river basin and the drainage basin contributing to the Billings Reservoir. Geologically, the area rests upon the crystalline basement of the Embu Complex, featuring a predominantly

Figure 3 – Photograph of a 1978 photo of the Sanu, held by the Sanctuary's founder



Source: author, in 2023.

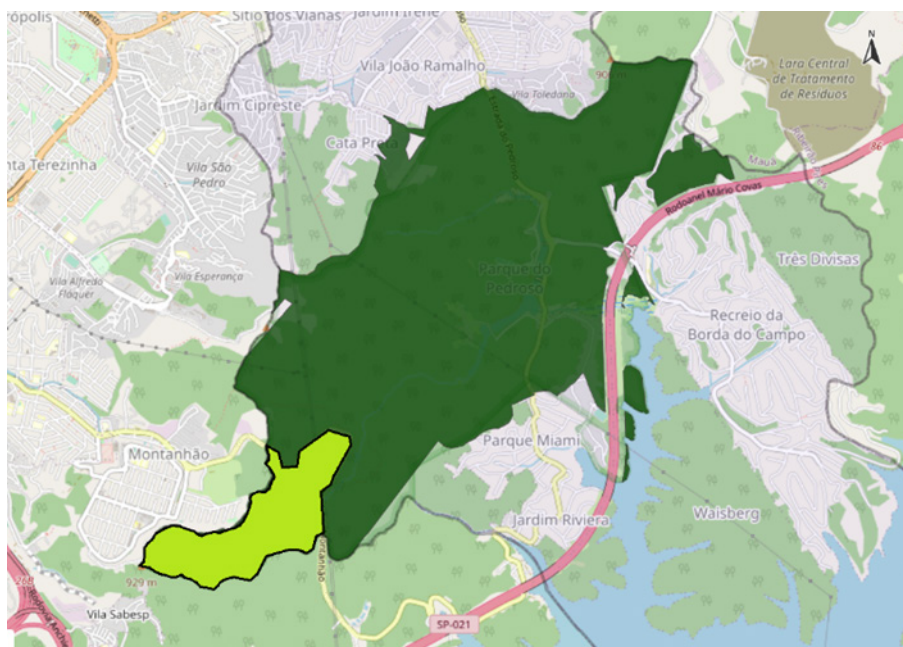
mountainous terrain and Red-Yellow Latosols (Oxisols), which sustain a Montane Dense Ombrophilous Forest (ibid., 2016).

The area is rich in water resources, featuring numerous springs and watercourses that feed the Billings system. The fauna and flora inventory records endemic and threatened species, such as the brown howler monkey (*Alouatta guariba*) and the juçara palm (*Euterpe edulis*) (ibid.). For Umbanda practitioners, these biophysical attributes are not mere cartographic data: the vegetation typology defines the dwelling place of specific Orixás, while the purity of the springs is a sine qua non condition for performing ritual baths and offerings. Thus, the geological and hydrological configuration of the park serves as the material foundation for the Umbanda cosmology. Figure 4 shows the location of the Sanu within the PNMP.

Thus, the history of the Sanu traces the trajectory of the environmental recovery of a former quarry, which represents one of the most challenging environments to restore. Furthermore, the Sanu attracts the interest of researchers across diverse fields, ranging from social anthropology to the biological sciences, whose studies integrate different forms of knowledge – as demonstrated by the article 'A grove of sacred leaves: the National Sanctuary of Umbanda and the worship of nature' (*Um bosque de folhas sagradas: o Santuário Nacional da Umbanda e o culto da natureza*) (Colli-Silva and Silva, 2019).

The establishment of the Sanu promoted the environmental recovery of an area previously degraded by mining activities. Beyond this ecological gain, the presence of Umbanda practitioners within the Pedroso

Figure 4 – Map highlighting the National Sanctuary of Umbanda within the Pedroso Municipal Natural Park



Source: prepared by the author in 2023, based on Siga (2016).

Park acted as a barrier against disorganized urbanization and irregular settlements, given its proximity to the urban zones of São Bernardo do Campo. An example of this containment occurred in the 1970s, when shacks set up on the site were removed through the initiative of the religious community itself, consolidating the Sanctuary as an agent of territorial management and surveillance.

Were it not for this presence, it is likely that the scenario observed in the Cata Preta neighborhood – part of which is located within the PNMP – would have been repeated in another region of the park. Furthermore, it should be noted that by environmentally restoring the area, the Sanctuary saved public resources that otherwise might have been spent on reurbanization and/or the removal of households, actions that would have also generated negative social impacts on the population.

Thus, within the Sanctuary, Umbanda practitioners can conduct their spiritual works and offerings, following a series of guidelines

that respect the environment without losing the religion's core tenets when performing them. In Afro-Brazilian religions, in general, the relationship with nature is a fundamental principle; therefore, their rituals are frequently performed in locations where nature is abundant, whether close to forests, bodies of water – such as rivers, waterfalls, and the sea – or rock formations. The significance of the Sanu also stems from the diverse presence of these elements, which mark the dwelling places of different entities and Orixás (Figures 5, 6, 7, 8, 9, and 10).

Some of the environmental preservation practices adopted by the Sanu include: (1) clear and simple signage to promote environmental preservation; (2) a prohibition on animal sacrifice; (3) specific designated areas for lighting candles to prevent wildfire outbreaks; (4) controlled access to natural springs to prevent contamination; (5) construction of personal hygiene facilities; and (6) proper waste collection and disposal.

Figure 5 – Valley of the Orixás (Vale dos Orixás) at the National Sanctuary of Umbanda, a space that features representation of various Orixás from Afro-Brazilian religions



Source: author, in 2022.

Figure 6 – Photograph of a waterfall, the dwelling place of Oxum, with offerings at the National Sanctuary of Umbanda



Source: author, in 2022.

Figure 7 – Monument to Saint Jerome and Xangô at the quarry within the National Sanctuary of Umbanda



Source: author, in 2022.

Figure 8 – Sign indicating care for the environmental protection area at the National Sanctuary of Umbanda, which reads:  
“Attention: You are in an environmental conservation unit. Spiritual cleansing (*descarrego*) in the waterfall waters is prohibited. Water is the source of life. Respect the sacred ground. Respect life. The Orixás and nature thank you”



Source: author, in 2022.

Figure 9 – Parking lot at the entrance of the National Sanctuary of Umbanda;  
in the background, the restrooms

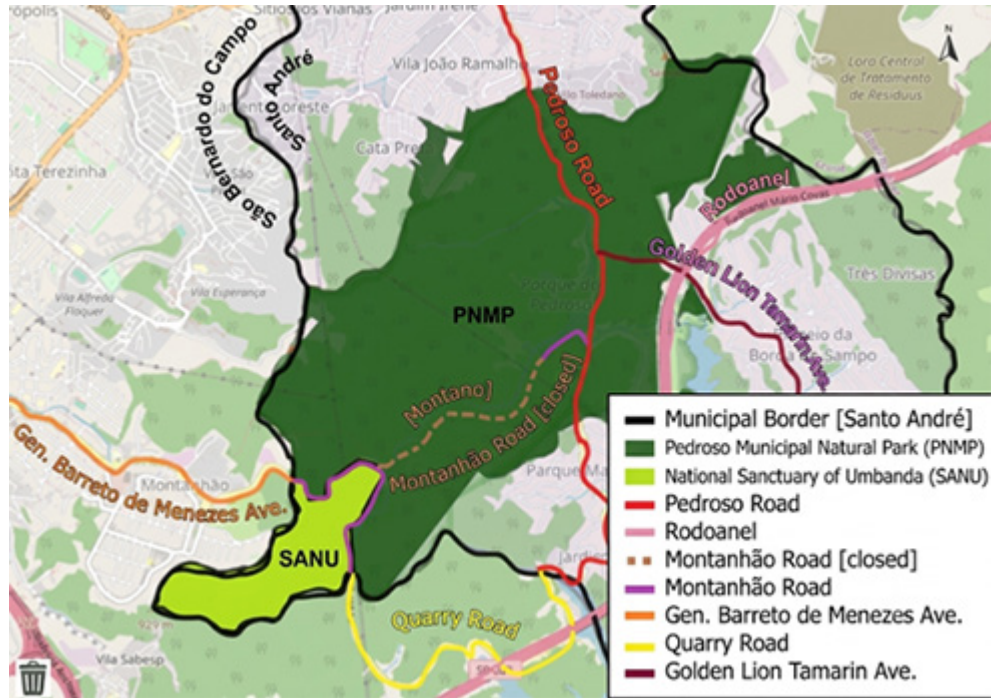


Source: author, in 2022.

Today, to reach the Sanctuary, it is necessary to travel through the city of São Bernardo do Campo. Moving from the PNMP headquarters to the Sanctuary requires leaving the park and re-entering it later. The minimal anthropic use of the section of the Montanhão Road – which connects the Sanctuary to the PNMP headquarters – occurred after it was closed to the general public, causing the vegetation to overgrow and rendering vehicular travel impractical. This movement was perceived by the Sanu as a way to hinder the displacement of the povo de santo

(community of practitioners) to the Sanctuary, since those living in Santo André must now travel a greater distance and over a worse road to reach it. This scenario was even worse in the very beginning, when the entire northern section of the Montanhão Road was closed, allowing displacement only via the southern section of the road, which is longer and takes more time to reach any urban area with paved streets, given that the entire Montanhão Road consists of unpaved dirt. Figure 10 shows the map of the PNMP with all the routes crossing its territory.

Figure 10 – Map of the Pedrosó Municipal Natural Park, highlighting the National Sanctuary of Umbanda and the routes crossing the park



Source: prepared by the author, in 2023, based on SIGA (2016).

Despite the access difficulties, all interviewed beneficiaries of cultural ecosystem services – here understood as practitioners who utilize the space for ritual purposes – stated that they frequent the Sanu due to the guarantee of expressing their religiosity without the fear of intolerance. A unanimous aspect in the accounts was the importance of the integrity of natural elements for connecting with the sacred and renewing energies. One of the interviewees noted that, in preserved environments, “the entity comes easier”, given the proximity to its original habitat. Even extra-cultural dimensions were mentioned spontaneously, such as the physical well-being provided by the “fresh air”, which makes the practitioner feel like ‘a new person’ for their weekly routine.

It is worth reiterating that Afro-Brazilian religions are plastic – that is, they adapt remarkably well to urban spaces as long as they can connect with nature, even if by relying on religious supply stores in the city to obtain some of the natural elements and reproduce them within urban *terreiros*. However, it is within nature that these religions reach their full potential, finding – much like at the crossroads – sources of energy and revitalization.

## Discussion

Following the analysis of the interviews, documents, and observations conducted, it is possible to clearly define the Sanu as an SNS. This is especially evident when cross-referencing Thorley and Gunn’s (2008, p. 12) list, as the Sanu exhibits most of the characteristics observed by the authors, which is more than sufficient to identify the Sanu as an SNS.

Unlike the cases reported by Irvine et al. (2019) – which address peoples ancestrally established in their territories – the Sanu

originated from the active search by Umbanda practitioners for a safe natural refuge. It is fundamental to highlight that this occupation occurs within a Municipal Natural Park, subjecting itself to a formal environmental management structure and the guidelines of its Management Plan. Nonetheless, the case aligns with the perspective of Wild and McLeod (2008) by demonstrating that SNSs can be established in response to new social and spatial circumstances, revealing that the creation of these areas is not a process static in time.

What stands out as a point of attention, in this case, is the relationship between the Sanctuary and the public authorities. An attempt was made to interview a person in charge of the PNMP within Semasa, who preferred to answer the questionnaire via email, demonstrating less openness to contact with academia. When asked about “what is the difference between the Sanctuary and other forms/models of nature conservation?”, they responded:

The Sanctuary is not a form of nature conservation; it is a place for religious celebration and rituals. It follows certain conservation regulations because it is located within a Full Protection Conservation Unit; however, such use of the space for this purpose is not compatible with this conservation category. (Cabinet Advisor for the Department of Environmental Management at Semasa, 37 years old, white, Catholic)

This view of the Sanctuary contradicts all the evidence presented thus far, which demonstrates how the consolidation of the Sanctuary has contributed to environmental conservation and recovery – not only due to the obligation to comply with environmental legislation, but, fundamentally, because of the way Umbanda and Afro-Brazilian religions in general perceive, feel, and incorporate nature.

It is observed that the view of the Sanctuary as merely a religious space, devoid of an intrinsic purpose of nature conservation, is also present throughout much of Semasa's Management Plan (2016). This includes passages that are inconsistent with one another, which cite studies and laws proving the importance of the Sanu as an environmental conservation space, only to subsequently state – without providing further detail – that its establishment within a Conservation Unit is illegal:

Regarding religious use, the situation of the Sanctuary stands out; even though it is not the only religious institution utilizing the PNMP, it assumes greater relevance due to its complexity and the proportion of the areas involved. *Its legal framework proved inoperable* even with Municipal Law n. 9,114/2008 and is susceptible to a *Direct Action of Unconstitutionality* (Adin). It is worth noting that the aforementioned Law – approved by an absolute majority in the Santo André City Council and sanctioned by the Executive branch – aimed above all “In recognition of more than 45 years of existence, to regularize the practice of religious use”. *Even though the Law conditioned the concession of use upon the Management Plan, and the institution has repeatedly submitted extensive documentation to execute an “environmental licensing of its activities and possession”* in order to formalize a Work Plan complying with the concession negotiations, *the management body cannot authorize the effective consolidation of this use due to the federal legal framework of the SNUC.* (Ibid., p. 84; emphasis added)

The Management Plan even contradicts existing studies conducted within the park and the Sanctuary that attest to the Sanu's relevance to environmental conservation and recovery in the region:

It is pertinent to consider the preliminary analysis conducted by USP regarding this conflict, which concluded that maintaining the Sanctuary within the PNMP is viable and compatible when it identified its activities and structures – 525.98 m<sup>2</sup> of built-up area, within its proposed zoning for the Management Plan – as an equivalent Intensive Use Zone, with an area of 97,794.60 m<sup>2</sup> (1.13% of the Park's total area). However, the numerous existing legal impasses must be considered in order to seek a negotiated and officialized solution between the PNMP management body and the National Sanctuary of Umbanda. (Ibid., pp. 266-267)

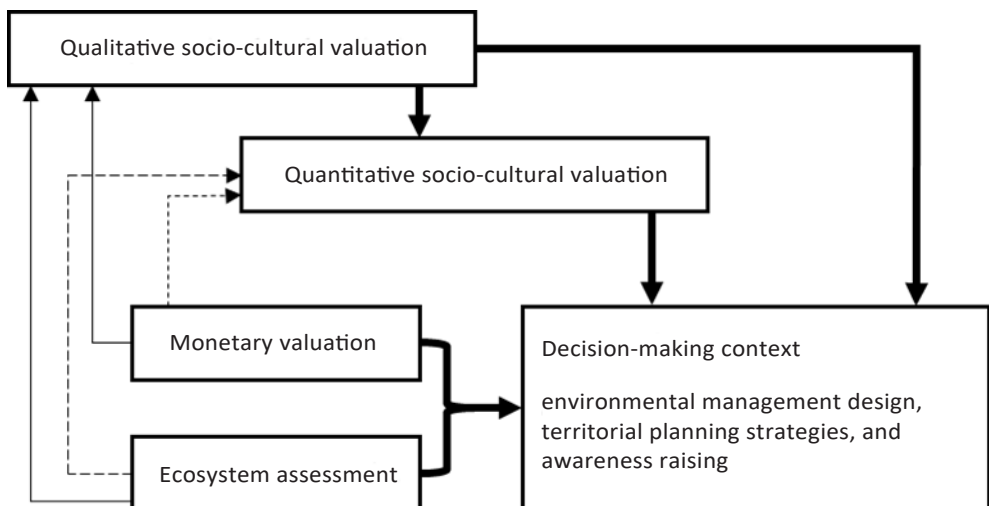
To better analyze this case, it is worth examining Wild and McLeod's (2008) principles for the management of SNSs, which can help reveal the problems present in the management of Pedroso Park regarding the SANU. The six principles are: (1) recognize SNSs already located within protected areas; (2) integrate sacred natural sites located within protected areas into planning processes and program management; (3) promote the consent, participation, inclusion, and collaboration of stakeholders; (4) encourage better knowledge and understanding of sacred natural sites; (5) protect sacred natural sites by providing appropriate management of their access and use; (6) respect the rights of custodians of sacred natural sites within an appropriate national policy framework.

Thus, the recognition of an SNS as such is necessary for all other principles to be respected. This aligns with one of the interviewed experts, who stated that the first step is the recognition of actions that are already being carried out but are not given their due value. These principles are also in compliance with Ma (2005), who recommends the inclusion of marginalized groups in the management of ecosystem services.

Concluding this discussion, a brief suggestion is made for future research on the topic. Initially, it would be important to conduct new studies based on quantitative or mixed methods to achieve a more complete and robust assessment of the Sanctuary, drawing on the model by Scholte, Teeffelen, and Verburg (2015) in order to assist public authorities in making better decisions regarding the management of ecosystem services. Although qualitative sociocultural assessment is necessary for decision-making, and is even capable of having greater power to influence future decisions, it is not sufficient and requires complementation with quantitative sociocultural assessments, ecological assessment, and monetary assessment, as outlined in Figure 11.

In the same vein, the study by Bennett et al. (2015) shows the importance of conducting transdisciplinary assessments, given that ecosystem service systems are complex and span phenomena that are objects of study across the humanities, social sciences, and natural sciences. Future research should strive to truly integrate these diverse fields of knowledge – an endeavor that poses a significant challenge within the specific and well-defined scope of a Master's thesis. Still according to Bennett et al. (2015), and in accordance with Díaz et al. (2015a), studies should be conducted from a collaborative perspective among different stakeholders, integrating decision-makers with ecosystem service users and integrating local and traditional knowledge with scientific

Figure 11 – Model for the integration of socio-cultural valuation methods in the decision-making context, along with monetary values and ecosystem assessments



Source: Scholte et al. (2015).

knowledge. In the case of the Sanctuary, this appears to be an even greater challenge, since Semasa's current management does not view it as an active agent of nature conservation, restricting its role solely to the preservation of a cultural heritage.

Indeed, the interviews and participant observation demonstrate that the social bonds within the Sanu shape a lived landscape. "Material practices" – such as cleaning the woods after rituals, planting liturgical herbs, and maintaining trails – are not viewed by the practitioners as "environmental management services", but rather as ritual obligations to care for the dwelling place of the entities.

Those who practice Umbanda do not refrain from polluting the water out of fear of an environmental fine, but because the water is the deity itself in its material dimension. This ethic of care, grounded in Environmental Anthropology, reveals that biodiversity conservation within the PNMP is strengthened by the presence of

the Sanctuary, transforming the Conservation Unit into a territory of cultural resistance and ecological balance.

## Conclusion

The evidence collected at the Sanu reiterates what the scientific literature indicates: the inseparability of ecosystem preservation and the practice of African-matrix religions. The study confirmed that, for this group, nature transcends the function of a ritual backdrop, being perceived as the very manifestation of the sacred. Thus, the environmental management carried out at the Sanu does not merely aim to maintain resources for future use, but constitutes an act of safeguarding the religious essence itself. The findings demonstrate that caring for the territory is, intrinsically, caring for the continuity of life and axé, validating the role of these groups as active agents of ecological conservation and restoration.

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#### Authorship contribution

Otávio di Nardo D'Andréa: project administration; formal analysis; funding acquisition; conceptualization; data curation; investigation; methodology; resources; writing – original draft; writing – review & editing; software; visualization.

#### Data availability statement

The dataset supporting the findings of this study is not publicly available.

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