


The Intersection of Culture, Identity, and Urban Planning: The Case of Boa Vista, Roraima, within the Amazonian Context

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Abstract

This research analyzed the relationships between culture, identity, and urban planning in Boa Vista, Roraima. The study was based on the idea that urban planning transcends the spatial structure of cities and influences cultural and social elements, particularly in the Amazon region. The objective was to analyze how local cultural forces and external influences influenced the urbanization process and the obstacles resulting from real estate speculation and the capitalist system. The approach was grounded in a critical analysis of the literature, encompassing research on sustainability, urban planning, and ancestral land management practices in the Amazon. This research helped to understand the connection between traditional peoples and territory, showing how accelerated urbanization negatively impacted sustainability and quality of life. The results indicated that the disorderly expansion of Boa Vista disregarded traditional knowledge, resulting in environmental degradation. The intensive exploitation of natural resources led to a decrease in biodiversity, river contamination, and the marginalization of indigenous communities. It was concluded that incorporating traditional practices into urban planning could foster a more sustainable and balanced development model. Therefore, this study highlighted the importance of urban planning that considers the environment and ancestral knowledge, balancing advancement and conservation.

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INTRODUCTION

Understanding the intersection between urban planning, culture and identity requires recognizing that this process is not isolated; it should reflect the social and cultural relationships that permeate urban life. In regions like the Amazon, where these dimensions are deeply intertwined, planning must be a means of achieving orderly and sustainable growth, respecting the cultural identity of communities.

An analysis of Eagleton's work (2003) reveals that culture plays a fundamental role in shaping the organization of cities, where traditional practices and ways of life still play a central role. In Boa Vista, however, the tension between local traditions and external forces, such as real estate speculation and migration, results in disorderly urban growth that compromises environmental sustainability and quality of life.

This disorder is evident in Boa Vista's demographic data from the last decade. Between 2010 and 2022, the population grew from 284,313 to 413,486 inhabitants, an increase of 46% in a 12-year period (IBGE, 2010; 2022). Projections for 2024 indicate that the municipality could exceed 470,000 inhabitants (IBGE, 2022). This rapid growth, driven by internal and international migration - particularly of Venezuelans - has strained urban infrastructure. As the capital of the state, Boa Vista is home to about 65% of Roraima's population and has expanded its territory in a disorderly fashion, exacerbating the occupation of sensitive areas, environmental degradation, and the inequalities that particularly affect Indigenous and traditional communities.

Urban Indigenous populations stand out in the municipality, especially the Macuxi and Wapishana peoples, who maintain cultural, political, and territorial ties with their communities of origin, even in urban and peri-urban contexts. According to Melo (2013; 2014), these groups work to defend their collective rights, value traditional knowledge, and fight for public policies that respect their sociocultural specificities in an increasing urbanization and institutional invisibility scenario.

In this context, incorporating critical perspectives such as those of Bispo dos Santos (2023) and Kopenawa (2023) is essential to understand the profound relationship between traditional peoples and territory. They challenge the Western view that treats space solely as an economic resource, emphasizing that nature is vital to sustain identities and

cultures. The unbridled exploitation of the environment, driven by the current urbanization model, leads to environmental degradation and the marginalization of local populations. Integrating these voices into the urban planning debate makes it possible to better understand the impacts of political and economic decisions on the lives of traditional communities, promoting more equitable and sustainable development.

The discussion on sustainability becomes crucial. The different paradigms that emerge in the debate, from conservative environmentalism to political ecology, reveal the complexity of the interactions between urban development and environmental conservation. Studies such as those by Jatobá *et al.* (2009) reveal that the lack of an integrated sustainability approach in urban planning contributes to the worsening of social inequalities and environmental degradation. Boa Vista's current urbanization model ignores the needs of traditional populations, who depend on land and natural resources for their subsistence, exacerbating social and ecological conflicts.

Finally, environmental history and ancestral practices of natural resource management, as addressed by Guimarães (2017; 2023) and Guida (2022), offer a rich perspective for rethinking urbanization. The experiences of indigenous and traditional peoples in the Amazon, who have developed sustainable ways of living in harmony with the environment, offer valuable lessons for contemporary urban planning. Recognizing and valuing these practices can pave the way for a development model that respects both local culture and ecosystems, promoting a balance between economic growth, social justice, and environmental preservation.

This article seeks to explore the interactions between culture, identity, and urban planning, particularly in the context of Boa Vista, Roraima, and to offer a comprehensive reflection on how local cultural forces and global influences shape urbanization practices, considering the particularities of the region and the challenges posed by the capitalist model.

MATERIALS AND METHODS

This article adopts a qualitative, interpretive approach, structured according to Silveira (1992), in order to integrate theory, critical analysis, and contextualization of urbanization and sustainability practices in the Amazon context. It is based on a critical literature review, with works selected based on thematic relevance,

prioritizing studies on culture, identity, urban planning, and traditional knowledge. The searches were conducted in Scielo, Google Scholar, CAPES Journals, and institutional archives databases such as the Empresa Brasileira de Pesquisa Agropecuária – Brazilian Agricultural Research Corporation (Embrapa) and the Instituto Brasileiro de Geografia e Estatística – Brazilian Institute of Geography and Statistics (IBGE), focusing on publications from 2003 to 2023, as well as classic works such as Eagleton (2003), Hall (2006), and Laraia (2008). In total, approximately 45 sources were analyzed, with emphasis on Indigenous authors and Amazon scholars, using descriptors such as "urbanization in the Amazon," "urban planning and sustainability," "traditional knowledge," "cultural identity," "Indigenous territory," and "urban growth in Boa Vista." The aim was to identify tensions and convergences between traditional knowledge and hegemonic urban models, especially in Boa Vista - RR.

CULTURE AND IDENTITY IN THE URBAN CONTEXT

Urban planning is a technical and political process that aims to organize and efficiently utilize urban space, promoting orderly growth, environmental sustainability, and the residents' quality of life. This process involves developing strategies focused on appropriate land use, infrastructure, transportation, housing, public services, and environmental management. The goal is to balance economic growth, social inclusion, and environmental preservation, addressing issues such as urban sprawl, mobility, natural resource management, and socio-spatial segregation (Felipe *et al.*, 2020).

Eagleton (2003) emphasizes that culture has the power to shape the organization of cities by incorporating local values, practices, and identities, something especially relevant in an Amazon region context, where traditional ways of life play a central role. However, in Boa Vista, Roraima, the influence of culture and identity on urban planning reflects tensions between local cultural forces and global influences, which shape political, economic, and social decisions. This leads to disorderly urban growth, driven by migration and real estate speculation. This growth reflects the global capitalist model of land appropriation and use, as well as the exploitation of natural resources, especially water.

Therefore, this urbanization process disregards the intrinsic relationship of local

communities with the territory, resulting in severe environmental impacts. Urban expansion areas are often located in environmentally sensitive areas, such as along the banks of water bodies, leading to the removal of riparian forests, pollution of rivers and streams, and siltation, in addition to affecting rainfall patterns (Muniz *et al.*, 2017; Pinheiro *et al.*, 2012; Sander *et al.*, 2012). These practices jeopardize ecological balance and affect both the environment and local populations' quality of life.

In this context of urbanization, Hall (2006) complements this analysis by discussing how, in a transforming city context like Boa Vista, cultural identities are constantly renegotiated, pressured by global influences that override local traditions, fragmenting them in a process that is not free from power, domination, and resistance. Rodrigues (2018) emphasizes that when addressing environmental problems in cities, the most vulnerable populations are the most affected and considered the main culprits of these problems. However, urban poverty, lack of adequate housing, water scarcity, lack of basic sanitation, air pollution, and the depletion of natural resources are not merely local issues, but the result of the broader process of capitalist production and reproduction of urban space.

Finally, Laraia (2008) offers an anthropological view of culture, emphasizing that it consists of a set of traditions, customs, beliefs, and values shared by a group of people and transmitted from generation to generation. Although influenced by the environment, culture is not determined by it, and each cultural system is constantly transforming, reflecting the changes brought about by urbanization and interactions among generations. In the case of Boa Vista, urbanization without adequate consideration of local culture and its identities results in an unsustainable process, where economic and social growth conflicts with the preservation of traditions and the environment.

LAND AND THE ROLE OF TRADITIONAL PEOPLES

Bispo dos Santos (2023) and Kopenawa (2023) offer deeply critical perspectives on the impacts of urbanization and the model of progress imposed on traditional and Indigenous communities. Both authors share the perspective that nature is not a resource to be exploited, but a living space, full of cultural,

spiritual, and social meanings, essential for the maintenance of collective identities.

Bispo dos Santos (2023) argues that land is more than a material or economic element; it is a vital component of the relationships of reciprocity and sustainability that sustain traditional quilombola and Indigenous peoples. Similarly, Kopenawa (2023) presents an Indigenous perspective that contrasts the Western concept of progress with the way of forest peoples' life. Urbanization, with its infrastructure and practices, devastates the environment and poses a direct threat to the physical territory and the cultural and spiritual integrity of Indigenous peoples.

In this context, the advance of urbanization and capitalism are part of the same dynamic of destruction, where nature is treated as a commodity and traditional ways of life are devalued and/or ignored. Urban development brings the destruction of forests and rivers, as seen in the previous section, as these spaces are home to the spirits and lives that Indigenous peoples protect (Kopenawa, 2023). Bispo dos Santos (2023) argues that this process can be seen as a form of violence that disfigures the balance between humans and the natural environment, a capitalist conception of nature that disregards the deep ties between traditional communities and their territories.

Indigenous communities do not perceive disorderly urbanization as progress, but as an existential threat that intensively exploits natural resources, destroys forests, degrades ecosystems, and makes the culture of these communities and traditional peoples invisible. Furthermore, this capitalist model of urban development marginalizes and excludes those who live in harmony with nature, prioritizing only the profit and economic growth of a small portion of the population. While urban progress is celebrated in cities as synonymous of development, to traditional peoples it means the loss of territory, culture, and autonomy (Bispo dos Santos, 2023; Kopenawa, 2023).

From these arguments raise the following questions: development for whom? What are the real costs? What does progress truly mean? This reveals the central conflict in the urbanization model practiced in the city. In Boa Vista, urban growth is marked by a lack of planning, resulting in environmental and social impacts that affect society as a whole, especially indigenous communities and traditional peoples who depend on the land. The imposed development model follows a capitalist logic that prioritizes real estate speculation and the exploitation of natural resources and ignores the cultural relationships of traditional peoples with

the territory. This urbanization process reflects a vision of progress that, instead of integrating communities and their practices, imposes an unsustainable model that compromises the ecological and cultural balance of the region (Becker, 2005).

Still within the context of the state of Roraima, Santilli (2011) highlights the devastating impact of squatters in the Raposa Serra do Sol area, both on the environment and on Indigenous culture and identity. He discusses how this occupation resulted in drastic changes to the environment and Indigenous cultures, with the imposition of foreign economic practices, such as cattle ranching, which altered the landscape and traditional ways of life. He also criticizes the process of exploitation and de-characterization of the lands, arguing that, in addition to the ecological damage, there was a significant cultural loss. Ironically, after the demarcation of the lands and the removal of the squatters, the Indigenous people were further blamed for the environmental damage caused by years of improper and predatory exploitation of their territory.

Concurrently, studies such as that by Oliveira *et al.* (2023) reveal that the preservation of traditional agricultural practices in the Raposa Serra do Sol Indigenous Territory has been essential to the sustainability and food autonomy of Indigenous peoples. The agricultural diversity maintained by these communities reinforces food security and the continuity of indigenous customs, which is a challenge today due to increasing contact with non-indigenous peoples. Besides contributing to environmental conservation, this traditional farming system also opposes the agro-industrial development model of agribusiness, which often ignores or threatens these practices in favor of methods and infrastructure that disregard the importance of agrobiodiversity for the ecological and cultural balance of the region.

URBAN PLANNING AND SUSTAINABILITY

According to the arguments of Jatobá *et al.* (2009), sustainability faces the dilemma of not being fully integrated into urban planning in the context of Boa Vista. The authors emphasize that there are different visions of sustainability, ranging from the more conservative ecologism, which focuses on environmental preservation in an isolated way, to political ecology, which understands sustainability more broadly,

incorporating social, cultural, and economic aspects.

The dilemma between conservative ecologism, moderate environmentalism, and political ecology emerges as a central point in the debate on sustainability. Conservative environmentalism proposes a vision in which humans should drastically reduce their intervention in nature, preserving ecosystems in their purest state, where human activity is seen as a constant threat to environmental balance. This approach tends to ignore the reality of communities that depend on natural resources for their subsistence, creating an idealized view of nature that excludes humans (Jatobá *et al.*, 2009).

Moderate environmentalism, on the other hand, recognizes humans as an integral part of the ecosystem and argues that, while they cannot be eliminated from this context, it is necessary to rethink their actions to cause the least possible impact on the environment. On the other hand, this perspective is criticized for adopting a pragmatic approach that, in certain contexts, legitimizes development practices that, in the long term, are still harmful to the environment (Jatobá *et al.*, 2009).

In turn, political ecology offers a broader approach, considering that the relationship between humans and nature should be guided not only by environmental conservation, but also by social justice, through the integration of cultural, economic, and territorial aspects (Jatobá *et al.*, 2009). This approach, however, faces implementation difficulties, especially in contexts where economic and political interests outweigh the demands for social justice and environmental conservation (Rodrigues, 2018).

Thus, none of these approaches offers a complete answer, and the criticism lies in the need for a more dialogical approach, one that goes beyond the dichotomies between conservation and resource use, recognizing the complexity of human interactions with the environment (Rodrigues, 2018). Therefore, the challenge lies in finding a balance between development, conservation, and preservation, where human practices can coexist sustainably with other forms of life, without compromising the ecological balance that sustains the biosphere.

Boa Vista's urban planning, however, still prioritizes an economic development model that disregards territorial complexities and socio-environmental impacts. As Becker (2005) observes, this type of urban expansion, guided by economic interests, fails to take into consideration the needs of traditional populations and their culture, as well as the

needs of local ecosystems, resulting in unsustainable land use and environmental degradation of water resources, such as river pollution and the removal of riparian forests.

This scenario is exacerbated when analyzing the arguments of Dulley (2004), who explores how the concepts of nature and the environment are often neglected in the urbanization process, seen merely as resources available for exploitation, without a true understanding of their ecosystem function or their value to local populations. In the case of Boa Vista, this fragmented view of the environment is reflected in the way natural resources, such as water and vegetation, are treated instrumentally and disregarded in urbanization projects. The occupation of riverbanks and streams, for example, ignores the impacts on environmental balance and the well-being of the most vulnerable populations, perpetuating territorial degradation (Pinheiro *et al.*, 2012).

Thus, it can be argued that urban planning in Boa Vista exemplifies the sustainability dilemmas discussed by the authors. While the discourse of progress and development ignores environmental and cultural complexities, the current urbanization model exacerbates social inequalities and ecological impacts. The lack of an approach that integrates notions of sustainability, as proposed by political ecology, highlights the unsustainability of the urban process, reinforcing the need to rethink urban planning in a more inclusive and environmentally responsible way, one that considers not only economic growth but also environmental conservation and respect for local territorial dynamics (Rodrigues, 2018).

ENVIRONMENTAL HISTORY OF THE AMAZON AND CONTRIBUTIONS TO PLANNING IN RORAIMA

The topics addressed by Costa *et al.* (2024), Di Gregorio (2024), Guida (2022), Guimarães (2017; 2023), Levis *et al.* (2017), Naísa (2023), Prümers *et al.* (2022), Schmidt *et al.* (2023), and Watling *et al.* (2018) reveal the rich history of ancestral occupation and sustainable management of the Amazon and offer an integrative view of the relationship between ancestral peoples and the environment. These articles emphasize that agricultural practices, land use, and occupation of the Amazon are not new phenomena, but have deep roots in the region's history, challenging simplistic perceptions that the Amazon is a pristine or uninhabited natural space.

Watling *et al.* (2018) and Guimarães (2023) explore how Indigenous peoples developed complex agricultural systems, which included the cultivation of diverse plant species and soil modification to increase fertility. This management was fundamental to the survival and flourishing of Amazon populations over millennia. The use of terra preta (black earth) - fertile soil derived from the management of organic waste and charcoal - exemplified by Schmidt *et al.* (2023) and Naísa (2023) reveals how these peoples were able to transform environments into productive and sustainable soils. This knowledge contradicts the notion that the Amazon was unsuitable for large-scale agriculture and shows that its ancient inhabitants managed to maintain a balance between agricultural production and environmental preservation, something that remains ingrained in the culture of their descendants, as presented in the previous sections of this essay.

Another particularly interesting perspective is presented by Prümers *et al.* (2022) and Guida (2022), which contradicts the idea that the Amazon has always been a region of scattered, sparsely populated villages. The discovery of ancient urban centers reveals that Amazon populations developed complex urban systems, adapted to the environment, which included both spatial organization and natural resource management techniques. Among the findings, two settlements stood out for their monumentality: Cotoca and Landívar, belonging to the Carabase agricultural culture that occupied approximately 4,500 km² of the Llanos de Mojos region in the Bolivian Amazon basin between 500 and 1400 AD. Both settlements had large earthen structures and pyramids over 20 m high, and nearby smaller settlements were found, all connected by approximately 957 km of aquifer channels and suspended walkways. There are also traces of agriculture and large-scale cultivation and management in the surrounding area, with the domestication of plant species to serve this population.

These findings demonstrate how little is known about the Amazonian peoples and demonstrate the need and importance of preserving these spaces, which can help us discover and rediscover ways of living in harmony with the environment (Guida, 2022). Urbanization practices, deeply integrated with the ecosystem, contrast with the contemporary urbanization model, which often destroys or irreversibly modifies the natural environment. In the context of Boa Vista, these ancient urbanization practices can serve as inspiration for urban planning that respects and

harmonizes with the local ecology, transforming the current urbanization model, which is guided by real estate speculation, the suppression of riparian vegetation, and the excessive use of available natural resources.

The importance of agricultural species introduced to the Amazon over the centuries and the traditional management of natural resources have enabled the creation of productive and diverse landscapes, as demonstrated by Costa *et al.* (2024), Di Gregorio (2024), Levis *et al.* (2017), and Guimarães (2017), which reinforces that the peoples of the Amazon had a relationship of care and management with the territory.

Costa *et al.* (2024) and Di Gregorio (2024) address the arrival of corn to Brazil via the Amazon and demonstrate how this region served as an entry and diffusion point for important agricultural species, which are widely used today. The studies highlight that the corn that arrived in Brazil was not fully domesticated and originated in Mexico 9,000 years ago. Seed exchanges during migratory waves across the South American continent and the stages of selection and diversification spread and modified corn into what we know today, of which 15 out of more than 300 corn species on the continent are Brazilian.

This exchange of agricultural species over centuries reflects the Amazon's integration into communication and migration networks that facilitated the circulation of plants and agricultural practices, enriching the region's biodiversity and food security. However, many species cultivated by traditional peoples have become extinct or are at risk of extinction due to the introduction of species adapted to industrial and agribusiness practices. The large-scale introduction and use of transgenic seeds resistant to agrochemicals and highly dependent on chemical fertilizers leads to genetic and cultural degradation that dates back to the colonial period (Oliveira *et al.*, 2023).

Levis *et al.* (2017) and Guimarães (2017) discuss the theory that pre-Columbian Indigenous peoples managed the Amazon rainforest and its landscape well before the arrival of Europeans, and what we see today is the result of centuries of alteration. One piece of evidence supporting both articles is the botanical diversity found near archaeological sites where 85 species domesticated and used by Indigenous peoples were identified, distinct from species found in other regions. The concentration of these species in these sites may be the key to locating and mapping other ancient human settlements in the Amazon.

Besides the variety, the domestication of species through fruit selection, management, and seed exchange with other peoples is evident, demonstrating that agriculture is not inherent to large cities. Another piece of evidence supporting this argument is the abundant presence of terra preta, which suggests a large population over a prolonged period. This fertile soil does not deteriorate over time and water action, and its neutral pH helps preserve traces of plants, ceramics, and other evidence of human presence. Evidence of management of species such as bamboo and palm trees was found in the geoglyphs, where the structures allowed harvesting while protecting the roots (Guimarães, 2017; Levis *et al.*, 2017).

According to Levis *et al.* (2017) and Guimarães (2017), nomadic groups that established settlements near and even far from rivers dug wells 8 to 100m wide to collect rainwater, which was used to irrigate their crops - field. This technique is still used today, but is falling into disuse due to contamination by pesticides. Sustainable biodiversity management not only provided essential food resources for the people but also helped maintain the ecological balance of the forest, creating productive and resilient landscapes.

By connecting the themes of the studies presented by Costa *et al.* (2024), Di Gregorio (2024), Guida (2022), Guimarães (2017; 2023), Levis *et al.* (2017), Naísa (2023), Prümers *et al.* (2022), Schmidt *et al.* (2023), and Watling *et al.* (2018) it is clear that the indigenous peoples of the Amazon have developed a relationship of deep integration with the environment, based on sustainable soil management practices, cultivation of agricultural species and spatial organization. This relationship demystifies the idea that the Amazon was historically unexplored or untouched and reveals a legacy of human occupation that balances the need for production with the conservation of natural resources. These ancestral practices offer important lessons for contemporary sustainable development challenges and can serve as models for rethinking urbanization and land use today.

FINAL CONSIDERATIONS

This study aimed to analyze how local cultural forces and external influences shaped the urbanization process in Boa Vista, Roraima, revealing the conflicts between traditional practices and the capitalist urban development model. The bibliographic analysis demonstrated that the indigenous peoples of the Amazon

developed sophisticated land management systems, based on a deep respect for nature and capable of promoting a balance between agricultural production and environmental conservation.

As Philippi Jr. *et al.* (2000) point out, addressing the socio-environmental challenges of the Amazon requires an interdisciplinary approach that combines knowledge from anthropology, ecology, geography, soil science, and urban planning. This integration is essential in order to understand the multiple interactions between culture, territory, and the environment, and can promote urbanization strategies that incorporate traditional knowledge and respect the region's socio-ecological diversity. When ignored, these connections result in fragmented solutions, with even more intense environmental and social impacts.

This contrast becomes evident in the current urbanization process in Boa Vista, where disorderly growth, driven by real estate speculation, ignores traditional knowledge and deepens the degradation of local ecosystems. The removal of riparian vegetation, river pollution, and pressure on sensitive areas compromise not only biodiversity but also the quality of life, especially for the most vulnerable populations. On a broader scale, these imbalances reverberate in changes to the hydrological cycle, climate dynamics, and the ways of life of small producers and traditional peoples – creating a veritable domino effect.

Observing the city's urban planning, it becomes clear that it fails to integrate a concept of sustainability compatible with the environmental and cultural specificities of the Amazon biome. The intensive and unregulated use of natural resources, combined with the marginalization of traditional knowledge, reflects an unsustainable model, the effects of which are already visible in the short and long term. However, practices such as the cultivation of local agricultural species, the use of terra preta, and the preservation of soil fertility offer valuable references for more responsible and inclusive urban planning.

Therefore, the legacy of ancestral occupation in the Amazon must be considered when formulating public urbanization policies. The city of Boa Vista can - and should - benefit from the incorporation of these practices, respecting both the local ecosystem and cultural traditions. Urban planning that recognizes the value of traditional knowledge and its relationship to the territory can foster the construction of a more just society, where development does not mean destruction, but integration and harmony.

In conclusion, it is necessary to rethink the urban development of Boa Vista, and other cities in the Amazon, from a perspective that values ancestral knowledge. Urban sustainability will not be achieved solely through technological solutions, but by adopting a holistic and interdisciplinary vision that combines environmental preservation, social justice, and respect for cultural diversity. The path to truly sustainable urbanization involves reconnecting progress and ancestry.

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AUTHORS CONTRIBUTION

Raíssa Fim Almeida: investigation; writing-original draft; Rachel Camargo de Pinho: conceptualization; supervision; Meire Joisy Almeida Pereira: conceptualization; supervision.



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