

Caxambu Water and Heritage: Cultural and Environmental Strategies for Mineral Water Preservation

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This article examines civic commitments and legal frameworks that have defended public access to water by recognizing its cultural value. In Caxambu, Brazil, the local population has collected mineral water from natural springs for centuries. The water's use is embedded in local social and cultural practices. However, over the last thirty years the water sources have become increasingly threatened by commercial and industrial interests. The local government and civic society have responded to the threat by creating protected areas and their efforts have culminated in the legal recognition of cultural intangible heritage as the basis for preserving water quality and ensuring access for future generations.¹



Cwa

Humid Subtropical











^{1.} The information presented in this article comes from the experience and civic work of Filipe Condé Alves, who served as secretary of tourism and culture of the City of Caxambu, vice president of the state council of tourism of the state of Minas Gerais, vice president of Federação dos Circuitos Turísticos of the State of Minas Gerais and president of the Regional Governance Instance of Circuito Turístico das Águas.

< Fig. 1 Parque das Águas in Caxambu (Source: Paulo JC Nogueira, 2016. CC BY-SA 3.0, via Wikimedia Commons).

The City of Caxambu and its Water Resources

The city of Caxambu, an Atlantic Forest hotspot in the Mantiqueira Mountains, is located in the southeast of Brazil and is one of the most populous areas of the state of Minas Gerais, where 50 per cent of the national GDP is concentrated. The city is located in the micro region of Circuito das Águas where thirty-seven carbonated natural mineral water sources flow.

The occupation of the region started in the seventeenth century, although it became famous in the second half of the nineteenth century when the Portuguese royal family moved to Caxambu. The presence of the monarchy brought prestige and notoriety to the mineral springs.

Today, the city of Caxambu is listed as historical heritage of the state of Minas Gerais. In particular, the landscape and architecture of the Parque das Águas complex is protected by the Decree of the Executive of State of Minas Gerais no. 40.288/1999. Besides the state listing, the site also obtained a municipal listing with the Protection Council of Cultural Heritage of Caxambu in 2017 and an ongoing listing analysis is being conducted by the Artistic and Historical National Heritage Institute (Instituto de Patrimônio Histórico e Artístico Nacional; IPHAN).

The Value of Parque das Águas

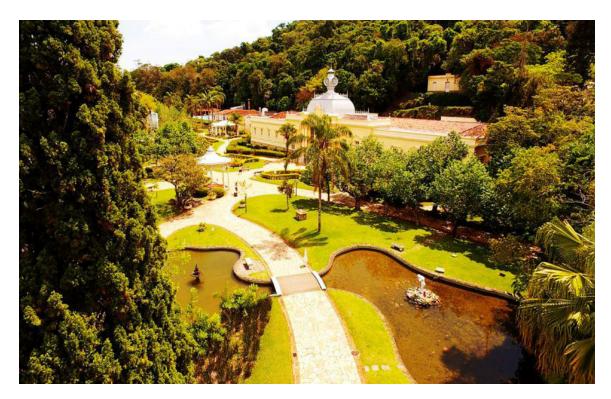
Parque das Águas is a historical site of artistic, environmental and cultural beauty, which features the presence of carbonated mineral water. The geological phenomenon of the site is yet to be completely studied, however there are twelve water sources with distintinctive physical and chemical properties in an area of just over 210,000 square meters. The value of the park and its mineral water goes beyond its ge-

ological wonder. The presence of these springs led to a city surrounded by the park and tourism. The local population has a cultural and spiritual relationship with the water. Practices include water collection habits and mineral water-based medical treatments. The carbonated mineral waters of Caxambu have elements of lithium, magnesium and iron. Widely used for mineral replacement in health treatments, the water is part of the local cuisine and ultimately of the territorial identity. The water is no ordinary drinking water, but a rare medicinal water resource with many uses. The presence of Caxambu water sources in poems, books, photographs and art exhibitions testifies to their close connection to the local population.

Yet, the mineral water and its sustainable use is endangered. In the contemporary context of profit-driven exploitation and climate change, there is the risk of water source degradation, pollution and extinguishment. The historical, environmental and cultural value of the mineral water is also in danger. Governments and society are challenged to develop laws, agreements and studies able to meet the threats and work for sustainable development and creative economic models that place people's culture and environmental action at the center of effective planning.

Threats to Mineral Water Sources and Public Responses

In the Brazilian legal context, mineral water is considered an ore rather than a water resource and that status threatens both mineral waters and people's access to them. According to Brazilian legislation, mineral waters are considered minerals and can be exploited up to total exhaustion, a threat that likely will become reality as water companies lobby the federal congress



^ Fig. 2 Overview of Parque das Águas de Caxambu, in the state of Minas Gerais, Brazil (Source: Mangia Samuel, 2018. CC BY 4.0 via Wikimedia Commons).

to prevent legal changes.

Since 1990 the explosion of the bottled water market resulted in overexploitation of the waters from Parque das Águas and the pollution of the mineral water sources. During the 2000s, the region became the subject of European multinational disputes, as international corporations had almost exhausted some of the region's water sources. Although some multinationals decided to leave the region to avoid reputation loss, the national companies that purchased the water sources continue to threaten the natural resource. As a result, the once-natural water flow has required the installation of faucets and pumps, a huge cultural shock for the local population, who have had to turn on taps from fountains that had always spouted from the earth. Also, the taste of the waters was altered, and people forgot the original taste. The need for pump installations represented a red flag that the total exhaustion of the mineral waters loomed. That would mean that future generations would no longer have access to this valuable resource.

Organized environmental and social movements have managed to restrain commercial water exploitation in some Brazilian cities. The city of Caxambu was one that managed to curtail industrial expansion. The position against commercial exploitation of the mineral water found legal basis in Mine Manifesto no. 1046, an authorization mechanism for mineral resources exploration made by the state of Minas Gerais in 1942 for several nationalized resources.

In 2018 a great public and municipal effort began to protect the mineral water sources of the city. This process focused on the interconnec-



^ Fig. 3 Dom Pedro Mineral Water Fountain, Caxambu Mineral Water Park (Source: Bruno Souza Jeremias, 2022. CC BY 4.0 via Wikimedia Commons).

tion between the social, environmental and economic aspects of water access and management and aimed at strengthening tourism as an economic force. The efforts of preservation needed to be broadened, and the national federative agreement, which extended legal power to federal states and counties, provided the legal framework to continue this campaign. In the same year, an interdisciplinary study of the environmental and geological resources of the region took place, focusing on the Circuito das Águas of Minas Gerais.

Public efforts and scientific studies converged in demanding the creation of environmental preservation areas. The Municipal Environmental Area of Preservation (Área de Proteção Ambiental Municipal; APA) plan was proposed to boost educational and economic opportunities while guaranteeing low carbon emissions by



Fig. 4 Caxambu Mineral Water Park (Source: IEPHA - MG -GOV, 1999. CC BY 4.0 via Wikimedia Commons).

safekeeping the superficial water, mineral water and historical heritage of the area, strategically protecting cultural and touristic practices. This plan was the starting point for the expansion of legal initiatives concerned with environmental protection and cultural safeguards, with the support of the local population and local and regional environmental movements.

The Municipal Plan for the Cultural and Ecological Preservation Area

The APA was presented on World Water Day in 2018. It involves a total area of 677 hectares surrounding the Parque das Águas and protecting the entire upper part of the stream micro basin, which goes through part of the city. The date of the presentation was chosen to stir up social support and the project was widely promoted, resulting in municipal decree no 2300/ 2018 creating the Municipal Preservation Area. Later the same year, the town hall of Caxambu approved the county law nº 2514/2018, proposed by the Municipal Executive, that included the project in the Cultural System of Caxambu, the legal, financial and budgetary plan of the municipality concerning matters of culture and preservation. By approving such a proposition, the town hall recognized the cultural aspects of water for Caxambu citizens along with its practical aspects. This represented an important turning point in the field of local water and culture management.

The decision of the Municipal Executive was strategic. On the one hand, APA areas do not guarantee access to water or cultural rights. On the other hand, without effective public involvement, the creation of protected areas would be dominated by political motivations threatening the effectiveness of the resolutions. Therefore, in late 2018 as the municipal secretary of tour-



 Fig. 5 Mineral Waters Environmental Protection Area (Source: Caxambu City, 2018. CC BY 4.0 via Wikimedia Commons).

ism and culture, and also as president of the Municipal Council of Cultural Heritage (Conselho Municipal do Patrimônio Cultural; COMPAC), I proposed the listing of water usage and the collection practices carried out in the Parque das Águas as intangible cultural assets of the city. This new framework aimed to provide a legal and political basis for the protection of mineral water access and recognition of its intangible value, while using cultural arguments to increase the local population's awareness of environmental preservation policies and the importance of safekeeping the waters, park and architectural heritage of Caxambu.

Beginning in 2020, the mineral waters and their cultural and therapeutic aspects have been recognized by the Municipal Plan of Culture, the planning instrument used by government and civil society organizations to define goals, actions and cultural objectives for the city. The civic effort intensified during the intense phase of the COVID-19 pandemic, when another area of environmental preservation was created, the Natural Municipal Monument of Morro do Caxambu, protecting fifty-seven additional hectares of territory. Also in December 2020, COMPAC started the research process for the "Dossier and Inventory of Cultural Practices," documenting the cultural practices related to the collecting of mineral water.

In 2021 a new municipal decree ratified the registration that recognized the centenary practice of collecting water from the hydric amenities in the region as intangible cultural heritage, guaranteeing the population access to the sources of mineral water, an unprecedented step in Brazil.

Legal Battles for the Recognition and Protection of Intangible Cultural Assets

Currently, the Municipal Plan of Culture is being challenged in court. The state of Minas Gerais filed a lawsuit against the city of Caxambu, claiming that the preservation of intangible cultural assets related to the use and collection of mineral waters amounts to "private property interference." The public space of Parque das Águas and its resources are managed by the Economic Development Company of the State of Minas Gerais (CODEMIG). CODEMIG is a publicly traded company, whose shares are owned by both the state and private investors. By protecting the mineral water sources through the recognition of their intangible heritage, the municipality of Caxambu threatens to undermine the revenues of CODEMIG private shareholders. which led the state of Minas Gerais to file the lawsuit as the majority shareholder.

However, the Historic and Artistic Heritage Institute of the State of Minas Gerais recognized the registration of the mineral water sources as intangible heritage and approved it with a caveat: the immaterial assets of the mineral waters sources are therefore officially recognized pending the completion of studies and the gathering of further information. Furthermore, the prosecutor's office of the Minas Gerais Public Ministry has unanimously supported people's right to access water and has supported the registration of intangible assets heritage proposed by the municipality of Caxambu, ratifying its legal validity.

With the approval of the Historic and Artistic Heritage Institute and the support of the public prosecutor of the state of Minas Gerais, the practices surrounding the collection of mineral water and its use will be recognized as state heritage. The work of the municipality of Caxambu provided the legal basis to protect mineral water sources throughout the region as well as to safeguard their cultural dimensions and to guarantee free water access for the population. Now, the city of Caxambu seeks funding, partnerships and researchers to help list all twelve mineral water sources of the Parque das Águas as UNESCO World Heritage, based on the local cultural practices of water collection and the need to ensure access to clean and healing mineral water for future generations.

Conclusions

Sometimes the establishment of protected areas is not enough. To achieve long-term socio-ecological justice, environmental actions need to be in tune with cultural practices. In the city of Caxambu, the local government and the public worked together to achieve a legal basis for the preservation of environmental, cultural, and social aspects of water sources.

After years of struggle, the collaboration between local government and citizens achieved the recognition of social practices surrounding the mineral waters of the Parque das Águas as intangible heritage on a state level, thus protecting both the water sources of Minas Gerais and the public access to them.

The case of Caxambu exemplifies how the legal recognition of cultural heritage aspects of water makes it possible to manage water as something more than just a resource, safekeeping the local population's water rights acquired



^ Fig. 6 Historical photo of the Parque das Águas de Caxambu (Source: turismocaxambu.com.br, 1920. CC BY 4.0 via Wikimedia Commons).

through generations and maintaining them for the ones yet to come. The recognition of heritage from government bodies can foster appreciation for water sources, the related practices and the surrounding territory, becoming the starting point for the preservation of water quality and people's relationship with the essential source of life.

The collaboration that happened in Caxambu between local government and civic society to recognize the multiple values that water holds for the local population can be replicated in other contexts. The author hope this case study can be an inspiration to others who fight to preserve water for humanity.

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