

**The Conservation Management of Engenho Uchôa Wildlife Refuge as a
Natural Heritage.**

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SUMMARY

From the perspective of United States preservationism, where the presence of human beings in areas understood as natural was opposed, the first protected areas in Brazil appear at the threshold of the discussion on the protection of the country's ecosystems, where the dichotomy between man and nature is admitted, and through which instruments for the management of Brazilian biomes and ecosystems are developed. This article discusses the nature management model in Brazil, contrasting traditional management (through the provisions of the National System of Conservation Units / SNUC and which reverberates to State and Municipal Systems) and the conservation management, understood as the modality of management that acts on the patrimonial dimension of nature. This discussion permeates the definitions of Natural Significance, Conservation and Natural Heritage in the Australian Natural Heritage Charter (IUCN, 2002), and through the example of the Mata do Engenho Uchôa Wildlife Refuge (RVSMU), a state conservation unit by the State System of Conservation Units of Pernambuco / SEUC, it is discussed how the current ecosystem management plan approaches and distances itself from the conservation management of its heritage values.

KEYWORDS: Conservation Management. Natural Heritage. Mata do Engenho Uchôa.

1 INTRODUCTION

The establishment of National Parks as a response to the demands that focused on the conservation of ecosystems has, at the end of the 19th century, the great initial milestone, which would, throughout the 20th century, become the basis for national policies for safeguarding nature. This milestone corresponds to the establishment of Yellowstone National Park in the United States in 1872, based on the American preservationism, which opposed the presence of human beings to the conservation of ecosystems. According to DIEGUES (2001), the American preservationism, whose main interlocutor was John Muir (1838-1914), was based on the belief that untouched nature should be preserved from the action, often destructive, of humans. In this sense, the myth of untouched nature is constructed, in which typically natural territories free from human activities still exist on the Earth's biosphere and, therefore, correspond to earthly paradises of outstanding aesthetic and spiritual value.

The critics of the American preservationist model fall precisely on the myth of untouched nature, when even Yellowstone National Park itself, established as a typical natural reserve, was established on the lands of Crow, Blackfoot and Shoshonc-Bannock indigenous peoples (DIEGUES, 2001). However, the U.S. experience is still the most successful experience of the last centuries with regard to the protection of natural sites.

This, by crossing national borders and becoming international, influences mainly the institution of National Parks in countries of the so-called "third world", being adopted by these countries for the conservation of their national biomes. In the case of Brazil, the experience of the United States was the basis for the institution of the first national park, the Itatiaia National Park, located in the states of Minas Gerais and Rio de Janeiro, in 1937.

The concept of safeguarding natural areas in Brazil is still strongly influenced by American preservationism. In this sense, the attributes of the natural site that were valued in the institution of the Itatiaia National Park still resemble those that are the basis for the safeguarding of protected areas today. As Pereira (2018) points out, the focus of nature preservation actions in Brazil, even with the advances of the 1988 constitution (regarding the recognition of national biomes as national heritage, art. 225), lies mostly on natural resources and ecological aspects. Thus, the safeguarding of natural sites in Brazil is distant from heritage policies as they are relegated to the Ministry of the Environment and its advisory and executive agencies.

The problem addressed in this article permeates the understanding of natural sites as natural heritage and, therefore, as areas endowed with value and meaning both in terms of

their biological and edaphic attributes and their cultural and social attributes, as a result of the relationship between the people associated with the ecosystems and the identity character of the fauna, flora and physiography of the sites for populations or, on a larger scale, for the nation as a whole. It is understood that natural heritage in Brazil has a dual character, the first that refers to the monumentality that evokes it as untouched nature and prominent aesthetic value, and second that interprets it as social testimony resulting from an intrinsic relationship of communities and the natural attributes (PEREIRA 2018).

2 OBJECTIVES

To discuss the mishaps in the management of natural sites through the analysis of the Mata do Engenho Uchôa Wildlife Refuge (RVSMEU), a state conservation unit located in the city of Recife-PE, **problematizing through the management plan instituted by the state government, how the management acting over the ecosystem is inserted in the conservation of its heritage values and its significance.**

3 METHOD OF ANALYSIS

This article is the result of the research developed by the Landscape Laboratory of the Federal University of Pernambuco - DAU/UFPE, and entitled "The Landscape of the Conservation Units of Recife"¹, which refers to a subcomponent of the CNPq Project 2015-2016 'Landscape and Garden: From the education of the gaze to the landscape value'.

This research aimed to identify the heritage values of the Conservation Units of the city of Recife, from the consultation of the populations involved with the conservation unit, directly or indirectly, based on the understanding of the indispensability of active social participation in the processes of management and decision on the territory and the natural heritage, which allowed the survey and quantification of the heritage values conferred by each category of actors related to the RVSMEU.

The research sample universe included twenty stakeholders distributed into three distinct categories: Residents, Experts, and Public Managers. Their oral reports were collected through semi-structured interviews, transcribed and analyzed using the Content Analysis method (Bardin, 1977) to identify the heritage values of RVSMEU. Thus, 9 (nine) heritage values were identified: Biodiversity, Geodiversity, Ecological, Nature Services, Scientific, Aesthetic, Polysensory, Historical-cultural, Spiritual.

Based on the identification of these values, a documental analysis was made of the legislation that applies to the management of the Conservation Units, especially the management plan instituted by the Secretary of Environment of the Government of the State of Pernambuco - SEMAS/PE. The values surveyed in the primary sources were compared with the values highlighted by the management instrument, discussing the panorama of the conservation management of this natural asset.

4 RESULTS

¹ Led by Professor from the Department of Architecture and Urbanism (DAU/UFPE), Dr. Onilda Gomes Bezerra.

Understanding the ecological complexity of the natural heritage (the sensitive relationships between biotic, abiotic, and anthropic factors) demands that management articulates strategies that aim at balancing the human and natural dimensions, which are in contact, often symbiotic. If there is no sustainable management of its attributes, the integrity or even the significance of the asset will be threatened. The document "Our Future Common"² of 1987 highlights the need to build strategies that allow the replacement of the current destructive growth guidelines, aiming at sustainable development. From this perspective, it is clear that natural heritage conservation management actions must encompass a variety of multidisciplinary actions aimed at conserving heritage values and their significance translated into sustainable development actions.

4.1 Heritage Conservation Management

The condition of the Natural Heritage as a heritage category subjected to various pressures of ecological and human order requires that within the development of management strategies different variables that influence the asset should be considered. Thus, it is important to investigate the conceptualization of heritage conservation management proposed by De La Mora (2012), when he states that it is:

...a specialty of public management aimed specifically at the formulation, implementation and management of heritage conservation policies, programs and projects integrated with the other dimensions of urban development. (MORA, 2012, p.115)

This quote is important, as it inserts within the management of the territory in its different dimensions, conservation management as a dialogical modality. In this sense, the management of heritage conservation does not act in parallel to the traditional management carried out by public or private agents, but is inserted within a management policy that should be primarily integrated, introducing the concepts of heritage value and significance within issues related to land tenure, uses, and other demands that influence the heritage and that ultimately aim at sustainability in a broader way (environmental, social, cultural and economic). Thus, the management of heritage conservation must be able to merge the various interests with the conservation of the asset (MORA, 2012). In the process of creating a Conservation Plan within the heritage management policy, such interests must be discussed with all interacting stakeholders, which Pontual (2012) discusses as a **negotiation process**.

This is a procedure parallel and inseparable from any procedure of a conservation policy and consists of the ability to mediate the diverse interests of the stakeholders on the asset being analyzed (PONTUAL, 2012), with the conservation of its Identified values as the guideline. De La Mora (2012, p.188) highlights that this procedure should seek the "establishment of convergent, complementary or joint actions to achieve common goals." Negotiation, therefore, consists not only in mediating the interests of the stakeholders involved with the asset, but also the "associations and partnerships between governments,

² "Our Future Common" – Brundtland Report – WCED (*World Commission on Environment and Development*), 1987.

entities, companies and institutions to make the proposed interventions financially feasible and make conservation planning effective, efficient and effective" (PONTUAL, 2012, p.95).

In this sense, the Management Plans emerge as a key instrument to guide the strategic actions that will act on the asset or territory. In the case of conservation units, a conservation plan is not adopted for the management of the territory, but a management plan, whose understanding of the difference is fundamental in the study of the problem of conservation of ecosystems as heritage assets.

4.2 Management Plan and Conservation Plan

The management plan is the technical document that establishes the zoning and the rules for the use and management of the natural resources of a Conservation Unit. It is, therefore, the fundamental management instrument, where the knowledge gathered about the unit (in the form of surveys, research, data, etc.) is based on strategic management actions for the territory encompassed by the ecosystem.

The SNUC establishes the management plan as a regulatory instrument for the actions and activities developed within a Conservation Unit, where, by defining the goals and objectives for this unit, the plan establishes certain anthropic activities as permissible. Thus, in addition to what is established by the SNUC, in a general way for all the conservation units (and their specific categories), the management plan is an instrument more focused on the local reality of the unit to which it refers, whose formulations, although aligned with the national, state or municipal system to which it is referred, advance in detailing the rules and restrictions for the use of the protected area.

However, as DIEGUES (2001) points out, the logic for the institution of protected areas follows the desires of the urban-industrial society. The author discusses that the institution of these protected areas and the management techniques allowed in these areas may overlap with pre-existing uses and populations. The instituted protected areas still tend to replicate the objectives of the first national parks in Brazil, with regards to permissiveness to ecological tourism and scientific research (demands from the populations of the large cities), as explained in the decree³ that instituted the Itatiaia National Park in 1937:

Whereas, in addition to its purposes of a scientific nature, it is also necessary to attend to those of a touristic order, which present themselves in conditions to make the Park a center of attraction for travelers, both national and foreign (BRASIL, 1937).

Diegues also affirms that very rarely the traditional knowledge of the populations related to a certain natural environment is recognized and adapted in the management of this territory. According to the author: "It is no surprise that in all natural protected areas scientific research is allowed, but not ethno-knowledge"⁴ (2001, p.70). Thus, management plans that do not incorporate these populations may represent a risk to their culture, knowledge and ways

³ Decree n. 1.713, June 14, 1937.

⁴ The author defines ethno-knowledge within the field of ethnoscience, as being the knowledge of traditional populations about the natural world, their forms of taxonomic classification, and logics correlated with the dynamics between these populations and nature. (O Mito Moderno da natureza intocada - 2001)

of life, and there should be a greater effort to integrate ethno-knowledge into management actions (DIEGUES, 2001).

This ethno-knowledge evoked by Diegues when discussing the inclusion of these populations in the management of the areas to which they are historically and culturally related goes back to the patrimonial condition of these areas for these cultures and which endows the natural site with values, making it pertinent to adopt a conservation plan that integrates the natural and human dimensions of this territory.

This conservation plan, inserted in a heritage conservation policy, acts as an instrument to guide the actions that affect the asset and must have as its fundamental basis the significance recognized by all interacting stakeholders. The Australian Natural Heritage Charter brought up for discussion the implementation of a conservation plan aimed at safeguarding the Natural Heritage. According to the charter, the basis of conservation is the assessment of the natural significance of the place, which is usually presented in the statement of significance (IUCN, 2002).

This notion is further expanded in the following articles, when the charter states that the conservation of a place should take into consideration aspects of natural significance and respect aspects of cultural significance. Thus, the conservation of natural heritage overrides the notions of ecosystem conservation based on a purely ecological and biocentric⁵ vision, generally adopted in management plans, by introducing into the management process the social and cultural representations associated with nature.

To this effect, it is necessary that the conservation plan be based on a collective conservation management model, that is, one that aggregates all the stakeholders that act or relate to the asset, and their interests and conflicts. The conservation plan, therefore, must be prepared with strong participation of these stakeholders who will confer value to the heritage asset. This issue of participation of the actors involved with the asset permeates both the preparation of a conservation plan and the preparation of Management Plans for Conservation Units.

Thus, through the empirical object of study Mata do Engenho Uchôa Wildlife Refuge will be discussed, how the process of management of the Conservation Unit takes place based on its heritage values.

4.3 The Heritage Values of the Mata do Engenho Uchôa Wildlife Refuge

The RVSMEU is a state conservation unit located in the city of Recife, established through State Law n. 14.324 of June 3, 2011, in line with the provisions of the State System of Conservation Units (SEUC). It presents itself as an Atlantic Forest ecosystem (and associated restinga and mangrove ecosystems) with approximately 200ha of land area, inserted entirely within the urban perimeter.

⁵ "... biocentrism brings in its core the respect for the life of natural elements, not glimpsing its utilitarian character for human welfare. There is in it an emphasis on 'biotic justice', defense of the right to life of natural processes, highlighting the issue of the risk of loss or disappearance of living beings on the planet" (BEZERRA, 2018).

Figure 1 - Landscape and location of the RVSMEU.



Source: Photographic collection of the author; Google Satellites 2020.

This conservation unit is associated with low-income communities, which by settling nearby, began to benefit from the environmental services of the Atlantic Forest and developed affective and identity relationships with nature (MOURA et al., 2020). From this relationship, emerged the movement in defense of the Mata do Engenho Uchôa, a strong popular movement, mostly composed of residents of the vicinity that claims the conservation of the ecosystem against the pressures of real estate that historically threatens the unit.

The management plan prepared by the Secretariat of Environment and Sustainability of the State Government of Pernambuco in 2013 recognizes that, among the conservation units contemplated with their respective plans prepared, the RVSMEU is one of them precisely because of the existence of the environmental movement structured by the residents of the region (PERNAMBUCO, 2013). This organized grassroots movement highlights the importance of this ecosystem for the population, passing (the ecosystem) to act not only as a supplier of inputs or various environmental services, but as a unifying milestone of the community for a common cause, or collective heritage of those who are inserted in the daily dynamics with the natural environment.

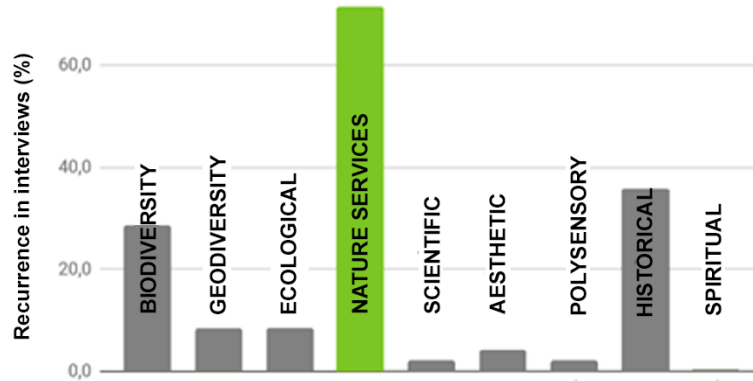
From the understanding of the RVSMEU as a natural heritage, the heritage values that the stakeholders related directly or indirectly to the asset emerge. The natural and cultural significance of the heritage arises from the set of these values and, according to the Australian Natural Heritage Charter, it is on this heritage that all management actions should focus (IUCN, 2002). Considering the Heritage dimension of the natural asset is to go beyond the historical limitations imposed by the American preservationist model and include in the discussion about safeguarding the areas with relevant natural attributes, the social representations of people and cultures that live with the environment and give it symbolic value.

Mason (2004) points out that when it comes to heritage values, these must be collectively recognized by the entities that are related to the asset, and it is based on these values that the communities recognize themselves in the heritage and give it meaning. In the case of RVSMEU, as it is a conservation unit, the biodiversity and geodiversity values are inherent to this heritage category, in addition to the ecological value, referring to the interaction of biotic and abiotic factors. According to the same Charter, when it comes to natural heritage, many communities tend not to see the natural attributes separately from the

cultural attributes, thus, in addition to natural values, cultural values and hybrid values (natural and cultural simultaneously) emerge (MOURA et al, 2020).

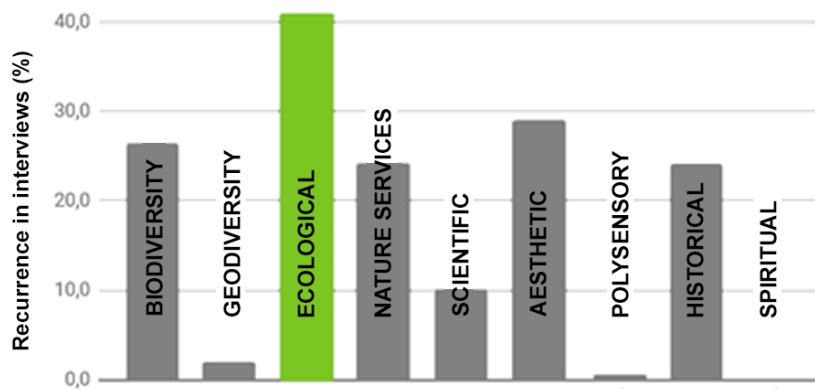
For the RVSMEU were identified 9 heritage values that are subdivided into natural values: Biodiversity, Geodiversity, Ecological; hybrid values: Nature Services, Scientific and Aesthetic; Cultural values: Polysensory, Historical-cultural, Spiritual. The recurrence in which these values were conferred by the stakeholders was quantified and systematized through the following graphs:

Figure 2 - Chart of Heritage Values of RVSMEU - Residents of the surroundings.



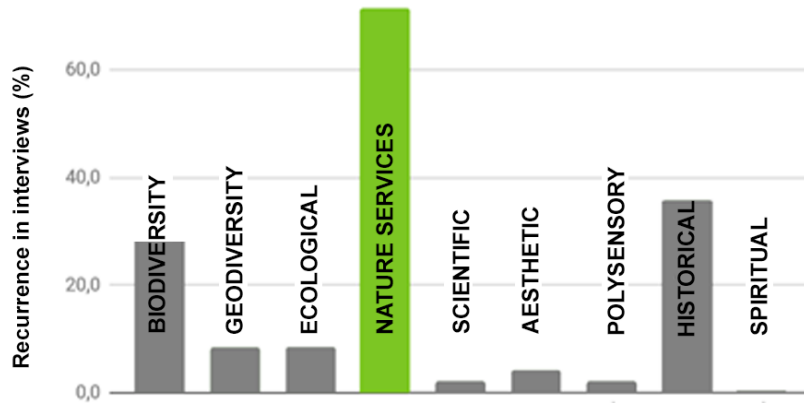
Source: Research "The Heritage Values of the Conservation Units of Recife: Mata de Dois Irmãos and Mata do Engenho Uchôa", 2016-2017, Landscape Lab - DAU/UFPE.

Figure 3 - Chart of the Heritage Values of the RVSMEU - Experts.



Source: Research "The Heritage Values of the Conservation Units of Recife: Mata de Dois Irmãos and Mata do Engenho Uchôa", 2016-2017, Landscape Lab - DAU/UFPE.

Figure 4 - Chart of the Heritage Values of the RVSMEU - Managers.



Source: Research "The Heritage Values of the Conservation Units of Recife: Mata de Dois Irmãos and Mata do Engenho Uchôa", 2016-2017, Landscape Lab - DAU/UFPE.

The graphs explain that the values conferred by different stakeholders tend to vary substantially according to the relationship that these stakeholders establish with the asset (MOURA et al, 2018; MOURA et al, 2020). In this sense, when dealing with Natural Heritage and the multiple representations that stakeholders make about this asset, the range of values that is conferred by different stakeholders represents a challenge to the preparation of a Conservation Plan. Thus, Mason (2004) points out that the challenge of preservation policy is to achieve and maintain a reasonable balance between values in conservation planning. The author continues the rationale by stating that "Preservationists should not advocate all heritage values, but understand them..." (p.70). Thus, action within conservation planning becomes multidisciplinary and dynamic, and conservation plans must emerge as a construct of a plurality of stakeholders to achieve a plurality of values.

In the discussion presented about the RVSMEU, however, in the absence of a Conservation Plan for the values and significance of the asset, it is questioned whether the current Management Plan can act in the conservation of certain values listed above. The final discussion in this article, therefore, centers around this management plan and its ability to act to conserve the natural and cultural values of the asset.

4.4 Management Plan in the Conservation of Heritage Values

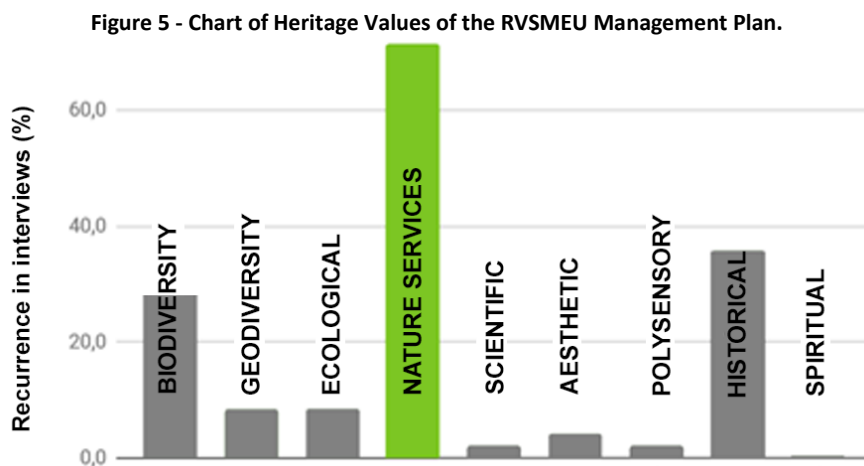
The RVSMEU Management Plan was prepared based on the determination of the State System of Conservation Units, which establishes the requirement to prepare management plans for all state conservation units. It is a technical document prepared in 2013 by the Secretariat of Environment and Sustainability of Pernambuco (SEMAS). In this plan, the SEMAS highlights that it is its task to "prepare a document that explains and disseminates procedures to ensure adequate protection of biological diversity and ecosystems considered relevant" (p.11).

This passage already introduces the clear intention of this management plan to safeguard the biodiversity and geodiversity attributes of the refuge, whose perspectives are allied to the traditional management notions of safeguarding national ecosystems with the ecological factors focused on the fauna, flora, and physiography of the site as a guide. This issue refers to the already discussed dichotomy between humans and nature imported from the American preservationist model and corroborated in this management plan through the

complementation of the previous quote: " elaborate a document that explains and disseminates procedures to ensure adequate protection of biological diversity and ecosystems considered relevant, by establishing rules for human use of these spaces. (p.11).

The problem with the passage cited at the beginning of the Management Plan is that it already introduces John Muir's vision of preservationism, by adopting the control of anthropic activities as a determinant for the conservation of the ecosystem.

In this sense, the discussion brought earlier about the heritage values conferred by different actors involved with the RVSMEU clearly shows the split between the perceptions of the local residents, directly related to the property, and the stakeholders involved with its public management. This issue becomes evident when analyzing the attributes that the Management Plan highlights regarding the RVSMEU, where there is a clear difference in relation to the attributes raised by the local players, especially those living in the surrounding communities (Figure 5):



Source: Research "The Heritage Values of the Conservation Units of Recife: Mata de Dois Irmãos and Mata do Engenho Uchôa", 2016-2017, Landscape Lab - DAU/UFPE.

The analysis of the graphs reveals that, even if built under the optics of participatory management, to what the plan defines as a "new bold and innovative methodology" (p.10), the representations of individuals correlated with the property end up not being supported within the scope of actions instituted in the plans (MOURA et. al., 2018).

The importance emphasized by the plan to the attributes of biodiversity (fauna and flora), geodiversity (waters) and ecological (system), reflects the biocentric vision on which the management of nature lies, not surpassed even when the participatory workshops were held. When discussed from the perspective of the RVSMEU's heritage dimension, its values and significance, it is understood that by acting as a plan that is the basis for safeguarding biodiversity and geodiversity, this management plan contributes to the safeguarding of certain heritage values, essentially natural values. In this sense, it does not act as a Conservation Plan that would be based on the heritage significance of the asset and would consider the range of values conferred by all interacting players, but as a plan for ordering activities and use of resources that, consequently, tends to safeguard certain values.

5 CONCLUSION

Thus, in the context of ecosystem conservation in Brazil, the Conservation Units Management Plan presents itself as an essential instrument, especially with regard to safeguarding the biodiversity and geodiversity of these territories. The provisions of the SNUC that provide support for the state and municipal systems of protected units, by emphasizing that these plans must be based on technical-scientific studies and with the participation of the entities involved (including traditional communities), imbues the construction of such plans with the presence of local cultures in the proposed actions for the use and management of natural resources. However, the discussion also raises the problem that the perspective of nature conservation in Brazil, strongly supported by the American preservationist model, and in the basis of which environmental legislation was built in the 20th century (and which will constitute the vision of the elaboration of Management Plans), many times excludes the anthropic factor from the primordial decisions of nature management.

The analysis of the empirical study of the Mata do Engenho Uchôa Wildlife Refuge highlights that, even with the cited SNUC and SEUC provisions for the elaboration of a participatory Management Plan, the lack of understanding of the patrimonial dimension of the asset, its values and significance end up prioritizing not the social representations and man-nature relations, but the ecological aspects, in a vision that separates man from territory, culture from nature, and finally, act more in restricting the uses traditionally carried out by the populations than in their understanding and regulation.

We conclude, therefore, that the relationships between communities and populations and the natural environment go beyond utilitarianism and subsistence, but are inserted into the symbolic field of signification of the space and that will refer to the construction of the identity of these populations. In this sense, the management of ecosystems should incorporate the management of the conservation of their values and significance, in an integrated management model in which the ecological dimensions and the management of natural resources should be carried out with the conservation of the patrimonial dimension of the asset in mind, safeguarding not only the biodiversity and geodiversity, values that are intrinsic to the natural heritage, but also the symbolic relations of the populations, translated into social representations that they make about the asset and that will build the natural significance in a break from the dichotomy between humans and nature. A clear example of the resistance struggle of the communities of the West Zone of Recife in the conservation of the ecosystem that is part of their identity construction.

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