

# Tourism in the Biosphere Reserve of Serra do Espinhaço: Opportunities and Threats to the Cultural and Natural Heritage

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## Abstract:

The Biosphere Reserve of Espinhaço (RBSE), *locus* of reflexion of this study, is the geographic platform of a process that encompasses an area rich in biodiversity and with a significant historical and cultural heritage. It is therefore an area of high ecological, social, cultural and economic importance. Established in 2005, it is considered one of the richest and most diverse regions of the world. With all this being presented, the area of Serra do Espinhaço eventually became an important destination for tourists. However, numerous studies have shown that the environmental heritage of the region has been systematically threatened by practitioners and tourism promoters. In a broader view of what is happening in the region in terms of tourist pressure, there is a pattern of socio-spatial transformation observed in different places and communities over time. Thus, in an exercise of understanding of how the tourist activity is occurring in the RBSE, this article seeks to examine how the historical and geographical aspects of the Reserve were appropriate and helped the region become the tourist hub that it is today. Later, it aims to reflect on the opportunities and threats that this activity has brought to the

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cultural and natural heritage of the region. For this, it was adopted as a methodological path, essentially qualitative, the consulting of works and researches on the RBSE, focusing especially on those that involve the tourist context of the region. It was noted that the appropriation of the territory of the RBSE by tourism is a reality full of conflicts and challenges.

**Keywords:** Tourism; History; Heritage; Biosphere Reserve; Serra do Espinhaço

**Resumo:**

A Reserva da Biosfera da Serra do Espinhaço (RBSE), *locus* de reflexão deste estudo, é a plataforma geográfica de um processo que engloba uma área rica em biodiversidade e com significativo patrimônios histórico e cultural. É, portanto uma área de grande importância ecológica, social, cultural e econômica. Fundada em 2005, é considerada uma das regiões mais ricas e diversificadas do mundo. A partir do cenário apresentado, a área da Serra do Espinhaço acabou por se tornar um importante destino para os turistas. No entanto, numerosos estudos têm demonstrado que o patrimônio ambiental da região tem sido sistematicamente ameaçado por profissionais e promotores do turismo. Em uma visão mais ampla do que acontece na região em termos de pressão turística, há um padrão de transformação sócio-espacial observado em diferentes locais e comunidades ao longo do tempo. Assim, em um exercício de compreensão de como a atividade turística está ocorrendo na RBSE, este artigo procura examinar como os aspectos históricos e geográficos da Reserva foram apropriados e ajudou a região a se tornar o centro turístico que é hoje. Em seguida, pretende-se refletir sobre as oportunidades e ameaças que esta atividade trouxe para o patrimônio cultural e natural da região. Para isso, adotou-se como percurso metodológico, essencialmente qualitativo, a consulta de trabalhos e pesquisas que contemplam a RBSE, focando especialmente naqueles que envolvem o contexto turístico da região. Observou-se que a apropriação do território da RBSE pelo turismo é uma realidade cheia de conflitos e desafios.

**Palavras-chave:** Turismo; História; Patrimônio; Reserva da Biosfera; Serra do Espinhaço

**Resumen:**

La Reserva de la Biosfera de la Sierra de Espinhaço (RBSE), *locus* de reflexión de este estudio, es la plataforma geográfica de un proceso que abarca una zona rica en biodiversidad y en patrimonio histórico y cultural. Por lo tanto, es una zona de gran valor ecológico, social, cultural

y económica. Desde su fundación en 2005, se ha considerado una de las regiones más ricas y diversas del mundo. A partir del contexto presentado, el área de la Sierra de Espinhaço se ha convertido en un importante destino para los turistas. Sin embargo, numerosos estudios han demostrado que el patrimonio ambiental de la región ha sido sistemáticamente amenazado por los profesionales y promotores de turismo. En una visión más amplia de lo que sucede en la región en términos de la presión turística ejercida, hay un patrón de transformación socio-espacial observado en diferentes espacios y comunidades a lo largo del tiempo. Así, en un ejercicio de comprensión de cómo se desarrolla la actividad turística en RBSE, este artículo examina cómo los aspectos históricos y geográficos de la Reserva fueron apropiados y ayudaron a la región a convertirse en el centro turístico que es hoy. A continuación, se pretende reflexionar sobre las oportunidades y amenazas que esta actividad ha traído para el patrimonio cultural y natural de la región. Para ello, se adoptó como senda metodológica, -fundamentalmente cualitativa-, la consulta de trabajos e investigaciones que contemplan la RBSE, centrándose especialmente, en los relacionados con el contexto turístico de la región. Se observó que la apropiación del territorio de RBSE por el turismo es una realidad cargada de conflictos y desafíos.

**Palabras Clave:** Turismo; Historia; Património; Reserva de la Biosfera; Sierra de Espinhaço

## 1. Introduction

Fully inserted within the limits of Minas Gerais, the Biosphere Reserve of Espinhaço (RBSE) is the *locus* of reflection of this article. It is the geographic platform of a process that encompasses an area rich in biodiversity and a significant historical and cultural heritage. It is, therefore, an area of high ecological, social, cultural and economic importance.

The Biosphere Reserve is a conservation tool, being formed by a set of representative ecosystems of the region in which it operates. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2016), the reserves strives to: (1) contribute to the conservation of biodiversity, including ecosystems, species and varieties, as well as the landscapes where they are located; (2) foster economic development that is sustainable in a socio-cultural and ecological point of view; (3) create logistical conditions for the execution of demonstration projects for the production and dissemination of knowledge, as well as the environmental education, scientific research and monitoring in conservation and sustainable

development fields<sup>208</sup>. Its management, according to the Ministry of Environment, is a joint work of government and non-governmental organizations as well as research centres. This integration between different agencies has as main focus the search for meeting the needs of its inhabitants in an attempt to ensure good Man-Nature harmony.

Created by UNESCO, the Biosphere Reserves have their support in the programme "Man and the Biosphere" (MAB), a project that is part of the United Nations Environment Programme (UNEP), the International Union for Conservation of Nature (IUCN), and various international development agencies.

The Biosphere Reserve of Espinhaço, established in 2005, is currently one of the seven biosphere reserves created in Brazil. It is considered one of the richest and most diverse regions of the world. Espinhaço has relevance of water view in Brazil, since it is an important watershed of the Rio Doce's basins and the São Francisco River. Allied to this, ecosystems found there are extremely fragile, with endemic and endangered species, like the rocky fields, for example. In this sense, interest in conservation is justified not only by its biological importance, but also on the importance of conservation of its historic and scenic heritage, and the need to ensure the survival and permanence of its residents.

Before this whole scenario and taking advantage of the physical and landscape attributes, combined with the remarkable cultural and historical features, the set of Espinhaço eventually became an important pole of tourist destination. However, numerous studies carried out by research groups, including the Integrated Research Group of Espinhaço (GIPE), coordinated by Bernardo Machado Gontijo of the Geography Department, Minas Gerais Federal University (UFMG), have shown that the region's environmental heritage has been systematically threatened by practitioners and tourism promoters. In a broader reading of what is happening in the region in terms of tourist pressure, there is a pattern of socio-spatial transformation observed in different places and communities over time. In Serra do Cipó, for example, which includes the southern portion of Espinhaço, this pattern has been dictated by what primarily was observed in the district of Cardeal Mota, belonging to Santana do Riacho, since it was from this location that other regions of Serra do Cipó were being appropriated by tourism (Gontijo, 2007).

The creation of the Biosphere Reserve of Espinhaço comes in the midst of discussions on conservation alternatives for that territory. The UNESCO seal was supposed to guarantee a

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<sup>208</sup> The MAB Programme and the Biosphere Reserve of UNESCO, available at: [http://www.rbma.org.br/mab/unesco\\_01\\_oprograma.asp](http://www.rbma.org.br/mab/unesco_01_oprograma.asp) (consulted on: 16.06.2016).

support for actions aimed at this purpose. However, what is observed is that the seal and the official heritage listing of Serra have much greater effect on its dissemination and promotion than in its preservation.

Thus, in an exercise of understanding of how the tourist activity is occurring in the RBSE, this article seeks to analyse how the historical and geographical aspects of the Reserve were appropriate and helped the region become the tourist hub it is today. Later, it aims to reflect on the opportunities and threats that this activity has brought to the cultural and natural heritage of the region.

## **2. Methodology**

For the elaboration of this article, essentially with a qualitative nature, the methodological choice was to consult works and researches that address the RBSE theme, including the report entitled "First Periodic Review of the Biosphere Reserve of Espinhaço" (Andrade *et al.*, 2015).

The performance of GIPE, which most of the authors are part of, also allowed the construction of this proposal, which includes the data and analysis previously undertaken in the region, specially on the dissertations of Scalco (2009), Barbosa (2011), Braga (2011), Moss (2014) and Souza (2014), and the theses of Gontijo (2003), Morais (2014), Ribas (2015) and Santos (2016).

The "Regional Strategic Plan around Major Mining Projects of the Middle Espinhaço" conducted in 2013 by the Centre for Development and Regional Planning (CEDEPLAR) of the UFMG, which also addressed the study area, served as the basis for understanding the geographical and the historical features of the RBSE associated with the promotion of regional tourism. The secondary researches conducted by the Tourism State Department of Minas Gerais (SETUR-MG) regarding the demand profile of tourists visiting the region were also considered when characterising the tourism in part of the area lying within the territory of RBSE.

## **3. The Biosphere Reserve of Serra do Espinhaço**

Serra do Espinhaço was recognised as a Biosphere Reserve in June 27th, 2005, to be an extremely important watershed in Central Brazil, having species of endemic flora and fauna and for being one of the largest formations of grasslands in Brazil. In addition to that, Espinhaço is considered one of the richest and most diverse regions of the world. For Andrade *et al* (2015),

with the recognition of the Reserve by UNESCO, the name “Serra do Espinhaço” gained greater notoriety in academic circles, media, governments, and also to the general public.

The RBSE comprises an area of 3.07 million hectares. Its coverage area, according to the Biodiversitas Foundation (2009), begins with the Ouro Preto and Ouro Branco ridges, in the central-south region of the state of Minas Gerais, also reaching the mountains of Caraça, Catas Altas and Barão de Cocais. Near Belo Horizonte are the Serra of Piedade, Moeda, Cural and Cipó. The Serra of Cabral is in the Alto São Francisco region, and Diamantina, Serro and Itambé are located in Alto Jequitinhonha region. The RBSE comprises a total of 94 municipalities<sup>209</sup>.

According to information provided by the state committee of the RBSE<sup>210</sup>, protecting the RBSE is justified, for example, because the share in Minas Gerais, specially Serra do Cipó, houses 67% of the endangered plants species, which comprises the largest number in Brazil of endemic species of flora and fauna that can be associated with these plants. The “Zoning synthesis of the RBSE” (Figure 2) has a total area of 3.076.457,8 ha, with core zones areas of 204.522,14 ha, buffer zone areas of 1.979.996,65 ha and the area of transition zone of 991.939,01 ha.

On the historical/archaeological point of view, the roads that now cut Serra do Espinhaço began to be drawn about 12000 to 8000 BC by the first inhabitants of the region, ie Negroid people, who were followed by ameridians (Goulart, 2001). The Amerindians, who also had great presence in the Serra, were the second wave of settlement begun around 8000 BC, and left numerous archaeological sites and scattered cave paintings in almost all the region, of which we can highlight the “Grande Abrigo” and the Lapas dos Gentios and Sucupira, in Serra do Cipó. Travelers’ destination since the 18th century, Serra do Espinhaço has strong marks in its landscapes formed from the discovery and settlement process of the region to the present day.

In the eastern edge, as a part of the Atlantic Forest Biome and the Doce River Basin, it was formed the “Caminho do Mato Dentro”, part of the extensive Royal Road. Through this path

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<sup>209</sup>Diogo de Vasconcelos, Dom Joaquim, Engenheiro Navarro, Felício dos Santos, Ferros, Francisco Dumont, Gouveia, Ibirité, Igarapé, Itabira, Acaiaca, Alvinópolis, Alvorada de Minas, Augusto de Lima, Baldim, Barão de Cocais, Barra Longa, Belo Horizonte, Belo Vale, Betim, Bocaiúva, Bom Jesus do Amparo, Brumadinho, Buenópolis, Caeté, Carmésia, Catas Altas, Catas Altas da Noruega, Claro dos Poços, Coluna, Conceição do Mato Dentro, Itabirito, Itamarandiba, Itambé do Mato Dentro, Itatiaiuçu, Itaverava, Jaboticatubas, Jeceaba, Jequitaiá, Joaquim Felício, Lamim, Lassance, Mariana, Mário Campos, Materlândia, Moeda, Monjolos, Morro do Pilar, Nova Lima, Congonhas, Congonhas do Norte, Conselheiro Lafaiete, Contagem, Corinto, Couto de Magalhães de Minas, Curvelo, Datas, Diamantina, Nova União, Olhos D’Água, Ouro Branco, Ouro Preto, Passabém, Piranga, Presidente Juscelino, Presidente Kubitschek, Queluzito, Raposos, Rio Acima, Rio Manso, Rio Piracicaba, Rio Vermelho, Sabará, Sabinópolis, Santa Bárbara, Santa Luzia, Santa Maria de Itabira, Santana de Pirapama, Santana do Riacho, Santana dos Montes, Santo Antônio do Itambé, Santo Antônio do Rio Abaixo, Santo Hipólito, São Brás do Suaçuí, São Gonçalo do Rio Abaixo, São Gonçalo do Rio Preto, São Joaquim de Bicas, São Sebastião do Rio Preto, Sarzedo, Senador Modestino Gonçalves, Serra Azul de Minas, Serro, Taquaraçu de Minas, Várzea da Palma.

<sup>210</sup> More information available at: <http://rbse-unesco.blogspot.com.br/> (consulted on: 17.02.2016).

has passed the majority of travelers and naturalists<sup>211</sup> of the Post-Joanino period and on the notes of the travelers it was common to mention the beauty of the Serra. The traces of Portuguese architecture still mark the landscape of historical cities on this part of the Serra, being, the path itself, also very representative. In the western portion, where the Cerrado prevails, the softer relief traits are marked by some waterways of São Francisco River Basin. With the indians' decimation, the Afro-American slaves were scattered in various quilombos.

Regarding the settlement of Portuguese origin, the first records, according to the ICMBio (2009), are from the 16th century, when, in search of alternatives to generate resources in the Cologne against sugarcane crisis, Portugal encouraged several expeditions to the interior of Brazil in search of precious metals and stones. The first record is from 1572, when the scout of Sebastião Fernandes Tourinho would have gone through the East edge of Espinhaço, with about 400 men, to make the journey between the captaincies of Bahia and São Paulo.

With the decline of gold and diamonds mining in the late 19th century, the region was gradually falling by the wayside. The lack of passable roads and the difficulty in moving the rough terrain of the Serra worked as attractive only to some former slaves groups that, after the abolition of slavery, migrated to the west edge of the Serra, where they established some villages. The period between the 19th and the 20th centuries was marked not only by economic stagnation, but also by constant territorial rearrangements between the municipalities that form this region. The stagnation was most striking in the West edge, marked mainly by the geographical isolation due to the lack of access, and this is a visible fact in the landscape today.

From a touristic point of view, this activity is highlighted on the RBSE, mainly due to its privileged location regarding the main emitting centres, which present considered reasonable distances from the urban centres and because of the proximity to the Confins Airport (Andrade *et al.*, 2015). Associated with physical and landscape features of the region, the cultural aspects, such as crafts, cooking, literature, music, among others, also contribute to making RBSE a potential area for tourism. Thus, its biological, geomorphological and historical importance justify the adoption of urgent measures for the conservation, development and promotion of the entire mountain complex in question.

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<sup>211</sup> Among the naturalists who visited the area it can be highlighted: B. von Spix and Carl Friedrich Philipp von Martius, Johann Jakob von Tschudi, Auguste Saint Hilaire, Peter Lund, Wilhelm Ludwig von Eschwege, Eugenius Warming, Louis Agassiz, Richard Burton, Georg Heinrich von Langsdorff, John Malwe and Johann Baptist Emanuel Pohl.

#### 4. Tourism in the RBSE

Tourism, broadly understood, represents a great potential phenomenon in (re)structuring of areas and, therefore, capable of interfering with the environmental dynamics of a given destination. Said this, it is able to streamline and/or coordinate various economic activities and branches, without, however, omit to reflect society's determinations in which it operates. Said that, it is able to streamline and/or coordinate various economic activities without omitting to reflect society's determinations, that can be characterized as a contradictory, full of conflicts, controversial and uneven society: a result of a reflection of the present historical moment with globalization and/or capitalism and also with a discourse of ecological and sustainable views (O'Connor, 1988).

In the specific context of the tourism developed in the RBSE, 8 of the 45 existing certificated circuits in the state of Minas Gerais are fully within or intersect the area of the Reserve, namely: Serra do Cabral, Diamantes, Guimarães Rosa, Serra do Cipó, Ouro, Veredas do Paraopeba, BH e Vilas and Fazendas of Minas. The touristic elements developed in all circuits and found in the RBSE correspond mainly to the cultural and natural heritage, with the presence of nationally and internationally recognised destinations.

Regarding the cultural attractions, it is possible to highlight all the aspects that include the historical and cultural heritage, as well as great cultural events, which value and promote the tangible and intangible assets of culture, present mainly in the circuits of Diamantes, do Ouro, Guimarães Rosa, Veredas do Paraopeba and Vilas and Fazendas of Minas. It can be mention, in this sense, the presence of traditional communities in the region, as well as a variety of cultural events, such as parties, rural way of life, Baroque culture, crafts and typical cuisine. Despite being recognised specially by the great diversity of natural attractions, the area of the RBSE features, on the other hand, a great number of historical and cultural attractions. Among the historical and cultural attractions in the region, it is considered as with a great turistic potential the following: the history of the municipalities, religious architectural heritage, houses, religious festivals, crafts and local cuisine, music bands and listed items (Noronha *et al.*, 2007). It is noteworthy that the "musealization" of historic and prehistoric archaeological sites is still a challenge with an effort to respect the cultural development of the region, as a challenge and respect for the cultural development of the region (Paula, 2011).

Regarding the natural heritage, due to the high incidence of natural attractions, such as rivers, canyons, waterfalls, mountains, etc, it is notorious the tourist vocation around the landscape aspects of the region, highlighting in this sense the circuits of Serra do Cipó and Serra



do Cabral. Because it houses beautiful natural landscapes in a space marked by the grandeur of the mountains and by the mountainous complex existence, it is possible to identify the predominance of tourism regarding nature, with activities that take advantage of these features, such as ecotourism and adventure tourism. It can be mention the trails and nature walks, adventure sports and contemplation of the region's typical landscaping. Another element that contributes to the shaping of a motivation focused on the contact with nature is the creation and demarcation of several Conservation Units (UC) in the area covering Espinhaço. As an example, we have Serra do Cipó National Park (Parna Cipó) of 33.400 ha, the Federal Environmental Protection Area Morro da Pedreira, as well as other state, municipal and private protected areas scattered throughout the territory of the RBSE.

Among the economic activities, mining and tourism are presented as the two main driving economic development activities in the territory of the RBSE. There are present in this area large companies with high potential for investment as the mining industry, the energy production, forestry, among others. Here we highlight the Royal Road Project, the State Department of Tourism, which since 1999 has the objective to establish itself as a major tourist route of the country and introduced itself as a motivator circuit of the tourist flow in the region (Becker, 2009). Covering more than 1630 km, the Royal Road runs through the states of Minas Gerais, Rio de Janeiro and São Paulo in four main ways, to know: Sabarabuçu, Velho, Novo and Diamantes. Although all paths fit within the space encompassed by the RBSE, as can be seen on the first map (Figure 1), only the paths of Diamantes and Sabarabuçu are entirely within the limits. However, it should be noted that Serra do Espinhaço, for playing the role of major inducer of the official settlement axis in the mineiro territory, especially in the period of greatest mining exploration of gold and diamonds in Brazil, has an intrinsic relation with the existence of the Royal Road. From the point of view of tourism development in the region, for rescuing cultural traditions and enhance the existing natural beauty along its route, the project adds value and contributes to shaping and strengthening the tourist identity of the RBSE.

It is also important to present some quantitative data related to tourist demand visiting the territory encompassed by the RBSE. According to the market study conducted by The Epler Wood International (EWI, 2007) regarding the destination of Serra do Cipó, 125.000 tourists visited the region in 2007. The celebration of the Jubilee that takes place annually in Conceição do Mato Dentro brings a significant number of tourists to the city (about 70.000), was not included in the analysed statistics. The data were calculated using as a basis the hotel offer and camping sites, presenting, at that time, an average occupancy rate of 30%. There was a higher concentration in Santana do Riacho, Jaboticatubas and Conceição do Mato Dentro, the latter

being the only municipality that belongs to the studied region, along with Pilar Morro municipality, that was the least visited. It should be mentioned that there are not consistent and updated data regarding the visitation in the East area of Espinhaço, as well as the destination of Serra do Cipó.

Regarding the profile of tourists visiting the region, according to the demand survey conducted by SETUR-MG, in 2011, it is observed that most of the tourists visiting the circuits of Serra do Cipó and of Diamante, specially the municipalities of Serro (São Gonçalo do Rio das Pedras and Milho Verde districts; 118 interviewed people) and Conceição do Mato Dentro (80 interviewed people), had primary motivation for leisure or touring (54.4% and 80.9%, respectively). Among these tourists, specifically, it was found that in the circuits of Serra do Cipó and Diamantes, ecotourism stood out as the main factor in attracting people to these locations. However, it appears that in the circuit of Serra do Cipó, because of the immense range of natural attractions such as waterfalls, mountains and rivers, as well as carrying out activities regarding the contact with Nature, the proportion of tourists who sought ecotourism as a main motivation is more significant compared with the circuit of Diamantes.

In the case of the latter circuit, it can be noticed an almost equal ratio among those interested in activities focused on eco-tourism (39.4%) and for cultural tourism (35.9%) (Minas Gerais, 2013). The tourist demand for the region's natural attractions reinforces the vocation of the RBSE and its surrounding area to the development of activities related to ecotourism and practices for Nature. On the other hand, attention is drawn to the current context in which this vocation is in conflict in relation to other economic activities in the municipality, in particular the mining activity. In this regard, Becker and Pereira (2011) draw attention to the context in which the mining activity, even though it represents the potential of allocating resources for investment in the consolidation and expansion of core areas of the RBSE, creates, on the other hand, "(...) tensions and conflicts with communities that depends of economic activities related to the traditional use of the territory and recently also linked to tourist use of the transition zone" (Becker and Pereira, 2011: 246). Therefore, the finding of the tourist vocation of the RBSE anchored in natural attractions must be accompanied by conservation of water resources for the maintenance of tourism in the region.

Finally, it is pointed out that by the cultural perspective, the region encompassed by Serra do Espinhaço is characterised by the variety of cultural events, expressed in popular and religious festivals, beliefs and cults of intense religiosity, the simple life of the centennial farms and small rural communities of the ridge (Becker, 2009). Thus, regarding the construction of tourism image bound, greatly, to the existing natural attributes, one must realise that, despite the

potential associated with this “vocation” of the region, the traits and sociocultural characteristics should be considered and strengthened.

## 5. Reflections on tourism in the RBSE

Geology, relief, water, climate and biota give the RBSE characteristics and landscape features that are now highly valued/sought as a tourist destination. To this “natural package” it can be added the prehistory of the region (very rich and yet to be revealed in all its real dimension<sup>212</sup>) and, specially, the history of its recent occupation, since the 18th century. This occupation has defined a whole process of urbanization, so unprecedented in the Portuguese colony, on the southern region of the RBSE, where is the so-called Quadrilátero Ferrífero. The colonial occupation also set a single management model, which was the delimitation of the entire northern part of what is now RBSE as an administrative enclave within the colony, in what became known as the demarcation of the Diamantina district<sup>213</sup>. Elements of this model of occupation were screened by Moss (2014) when she analysed the differences in urban models of three villages located in the RBSE, namely Lavras Novas (near Ouro Preto), Cardeal Mota (in Serra do Cipó) and Milho Verde (between Serro and Diamantina).

Besides the differences between the historic and prehistoric process of occupation, the macroecological differences<sup>214</sup> and how they have defined and define the current vocations and tourism potential, allow the definition of three tourist sub-regions for the RBSE, namely the Quadrilátero Ferrífero, the south region of Souther Espinhaço (or region of Serra do Cipó) and the northern part of the Southern Espinhaço (or Diamantina region)<sup>215</sup>. In all of them, we can see a mass tourist pressure (totalising in the words of Gontijo and Rego, 2003), which has jeopardise all educational/interpretative, environmental and heritage opportunity window, open because of the creation of the biosphere reserve. Therefore, it can be noticed ecotourism forays into real and profound sense of the term<sup>216</sup>, but in a tenuous, fragmented and spread across the region form, specially in the various conservation units existing there.

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<sup>212</sup> According to Gontijo (2003), Knegt (2015) and Gomes (2014), all of them GIPE researchers.

<sup>213</sup> According to an exhaustive study carried out by Lacerda (2014) showing the correlation between the mining culture and tourism in the region.

<sup>214</sup> According to Gomes, Abreu and Gontijo (2014).

<sup>215</sup> All the RBSE is inserted in what Saadi (1995) has defined as Southern Espinhaço. The Northern Espinhaço is an extension of the Espinhaço range from northern Diamantina region to the north-central Bahia.

<sup>216</sup> According to the analysis on Gontijo (2003) and Gontijo (2008) thesis.

The natural and cultural heritage are a unique amalgam when we refer to the RBSE, and it is fully observable in each of its three sub-regions. It is one of the few biosphere reserves on the planet where this correlation can be verified as sharp form – this is perhaps its major tourist differential, remaining to know until which point the tourists who attend this place (in increasing numbers) really know this feature/wealth/potential in order to appreciate it as what it really is.

The region of Quadrilátero Ferrífero attracted thousands of settlers in the 18th century, due to the huge gold deposits present there – the gold was associated with the extracted iron (and extract) today. Cities and small villages that were erected, with all the vigor of the baroque, which then appeared, constitute the national tourist destinations and internationally known. Both Ouro Preto as the Sanctuary of Bom Jesus de Matozinhos de Congonhas do Campo are considered World Heritage Sites. Other villages and cities originated in that time still retain much of their cultural/architectural heritage, all located in the midst of a hilly landscape, rich in waterfalls and even preserved vegetation. According to the GIPE, Scalco (2009) and Murta (2012) evaluated a neighbouring region to Ouro Preto, correlating the mosaic composed by numerous small conservation units present there with tourism and urban pressure exerted by the attractiveness of Ouro Preto.

As for the southern portion of the Southern Espinhaço, it lies at west on the Royal Road and the Atlantic Forest, in the stretch between Quadrilátero Ferrífero and Diamantina, and at east of the cerrado and the karst region of the Middle Rio das Velhas. This sub-region is embraced throughout Serra do Cipó and points to a more sparse occupation model, with many farms at the base of the mountain range and large population voids on the tops. Archaeological sites are abundant and signal to an ancient settlement, whose paths were also driven by the settlers who followed the Royal Road and its derivations. The altitudes are populated by rock, rich fields in endemic and endangered species and constitute a major aquifer recharge area, a factor that defines the occurrence of numerous waterfalls, the main tourist attraction in the region, including there the biggest waterfall of Minas Gerais: the waterfall of Tabuleiro. The tourist pressure there occurs in a scattered way and some bordering urban centres act as tourist influx centres (specially in Cardeal Mota, Conceição do Mato Dentro, Itabira and their districts) <sup>217</sup>.

The northern portion of the RBSE, on the other hand, corresponds to what was for a long time, during the 18th and the 19th centuries, the Diamantina district. A region with a cultural and architectural baggage among a rich and lush mountainous landscape with several landmarks

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<sup>217</sup> The history, geography and tourism in the region of Serra do Cipó were well analysed by Braga (2011) and its penetration axes were analysed by Ferreira (2010), both GIPE researchers.

that helped define the territory to be controlled by the crown. Such isolation led to the conservation of cultural and natural resources of the region, which today is a factor of great tourist attraction. There are also present the rocky altitudes fields, rich in flowers called evergreens and numerous waterfalls framed by high rocky jetties, including the highest peak of Espinhaço, Pico do Itambé, omnipresent landmark in the region's landscape. The city of Diamantina was also listed as a World Heritage Site and polarises a number of other cities and villages, all harbouring relevant and unique architectural heritage. Barbosa (2011), Morais (2014) and Goulart (2014) developed researches in which the issue of tourism was analysed in some of its interfaces with the districts and conservation units in the region.

As already pointed out, a number of researches conducted under the GIPE signal to the fact that the tourist flow in the RBSE is eminently mass tourism, not concerned to the appreciation/recognition of the rich heritage in which the reserve was recognised in 2005. The dissertation of Moura (2000) is clear on this finding, considering here only the gateway to Serra do Cipó (Gontijo, 2007). Searching another village in the same Serra do Cipó, Gontijo (2003) referred to this tourist inflow as "illusory" in a matter of the term ecotourism began to be increasingly used as a euphemism that masked the provoked anti-ecological pressure for this movement.

One of the territorial organization way that has contributed to minimise the pressure exerted by this mass tourism is the demarcation, creation and institutionalization of Conservation Units (UCs), as can be seen in the second map (Figure 2), specially those with full protection, in which the public use activities (read ecotourism) would take place in an orderly and controlled manner. The very conception of the RBSE predicted the coordinated management of several protected areas on the inside, and the creation of new ones, a fact that has been occurring in a shy way since 2005. What has been observed in practice, however, is that few full protection UCs (especially national, state and municipal natural parks) are properly equipped to receive large flows of tourists. An aggravating factor is that some of these protected areas are neighbouring cities/towns that are also the subject of tourist attraction as historical and cultural heritage treasures they are. The tourist influx to the cities and villages, specially on long weekends and during school holidays, enhances the pressure on the natural attractiveness of the adjacent regions, and most of them are within protected areas.

The difficulties in the effective implementation of many of these UCs lead to intense and uncontrolled flows of tourists, what jeopardises the opportunity of valuing the natural heritage of these protected areas, many of them also with several relics of historic and prehistoric heritage in its facilities. In officially open UCs for public viewing, the problem is minimized, but

not necessarily solved, once several tourists enter the protected areas without the knowledge of visitation control instances.

For example, Ouro Preto and Mariana are neighbours to the State Park (PE) of Itacolomi. Even officially opened, many tourists and nearby residents enter the park area without going through the concierge control. In PE Serra do Rola Moça, south of Belo Horizonte, there is a large flow of tourists moving to neighbouring villages, as well as the invasions, which are frequent, considering those areas adjacent to the urban area of the state capital. At the other end, the PE of Biribiri, which is not officially open, receives a huge flow of tourists coming from the neighbouring Diamantina, and has failed to discipline the high mass pressure. Pico do Itambé, which is located in the eponymous PE, has also received many tourists, despite the UC not be officially open. This problem is repeated in relation to the PEs Ouro Branco (Ouro Branco) and Serra do Intendente (Conceição do Mato Dentro), which have received many tourists, despite the unofficial opening of the same. Regarding the PE Serra do Intendente, it is developing a partnership with the municipality of Conceição do Mato Dentro within since it manages the neighbouring Municipal Natural Park of Tabuleiro, officially opened and that houses the largest waterfall of Minas Gerais, whose visit is increasing. In the National Park (PARNA) of Serra do Cipó and the PE of Rio Preto (in Diamantina region), both officially open and with proper visitation control, tourist pressure is reduced and ends up turning to the neighbouring regions, specially in the case of the Serra do Cipó.

In other protected areas spread across the RBSE, specially other management categories such as environmental protection areas (APAs) and natural monuments (MNs), there is an equal tourist movement. This movement, however, is more difficult to assess, regarding the category of management of its pairs, more fluid in terms of control and fiscalization, although the landscape potential of the RBSE is also verifiable and exploit for tourism. This is what has happened in the APA Morro da Pedreira (which involves Serra do Cipó National Park<sup>218</sup>), the APA Águas Vertentes (involving both PE Pico do Itambé and the State MN Várzea do Lajeado and Serra do Raio<sup>219</sup>) and APA Sul de Belo Horizonte (which involves the PE of Serra do Rola Moça and the Private Natural Heritage Reserve of Sanctuary of Caraça<sup>220</sup>).

The significant number of protected areas within the RBSE contrasts with the low asset value of their natural surroundings. The distinguished cultural and architectural assets that feature an

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<sup>218</sup> According to Works of Lopes (2009), Nascimento (2010) and Santos (2016), GIPE's researches.

<sup>219</sup> According to analysis of Souza (2014) and Abreu (2015), GIPE's researches.

<sup>220</sup> The case of the RPPN of Caraça is emblematic of the heritage amalgam that there occurs significantly, a fact that was analysed by Rodrigues (2014) in his dissertation. Its landscape was analysed by Lima (2013), a GIPE researcher.

unique historic and prehistoric heritage is little perceived in its various details on a mass tourism context. Landscapes are enjoyed without having notion of the historical importance of the same; waterfalls are enjoyed in an intensive and impactful way, without the appreciation and preservation of its springs and waterways. Towns and villages are visited without correlating their stories and heritage with Nature and the landscape in which they live. Lost visitation opportunities to natural attractions are not rare because of misinformed tourists or they are induced to remain in overcrowded urban sites as neighbouring protected areas are relatively empty (a verifiable fact in PE Itacolomi, PE Rio Preto and PARNA Serra do Cipó, all officially open but with visitation data that contrast with the volume of tourists staying in the surrounding towns of Ouro Preto, Diamantina and Cardeal Mota, respectively).

Even considering such missed opportunities, deep ecotourism initiatives and “personal” (also in the sense espoused by Gontijo and Rego, *op.cit.*) are possible and there occur. Opportunities of carrying out long trail journeys are not uncommon, and some routes already have been established, as the tracks of Lapinha to Tabuleiro and from Serra dos Alves to São José da Serra (both in the Serra do Cipó region), from Milho Verde and São Gonçalo do Rio das Pedras to Capivari and from the Itambé Peak to the PE Rio Preto (both in APA Águas Vertentes), in some stretches of the Royal Road near Ouro Preto, Itabira and Conceição do Mato Dentro, and also by the old railway road between Diamantina and Monjolos. Hiking constitutes an excellent immersion mechanism in which every tourist will have the opportunity to learn more about himself and thus be able to be open to know the space around him. If you can not do it, you can stay in remote places, in order to be able to establish this self-connection. There are several of these places in the vast RBSE territory, all interconnected by paths and that can be covered on foot or by any appropriate means of transport. The network of paths and trails of the RBSE is daily traversed by tourists, pilgrims, farmers, traders, extractivists, adventurous, drivers, although sparingly throughout its large territory. Those who travel by these paths are the true guides in the region, those with whom we must rely to learn to value all complexity assets of the RBSE.

Concerning the historical heritage, the lack of interpretation activities, little use and difficulty of access are common to the patrimonies of the RBSE. Even in historic centres listed by UNESCO, Diamantina, Ouro Preto and Congonhas, is common to find tourists wandering amid churches and monuments closed. In the municipalities less visited, this reality is even more present and helps increase the visitation flow that already exists around the destinations already cited as polarizing the flow of visitors to the region. The tourism held in the RBSE not truly acts as adding value to their natural and cultural heritage, once it does not allow the vast majority of

tourists the experience of experiences that integrate this heritage. It is noteworthy, therefore, that the existence of the attractive in isolation is not enough to ensure the development of tourism in these locations, specially if one considers that in the destination of Serra do Cipó, the focus of tourist supply is basically based on to the regional weekend demand, emphasising the waterfalls and the undervaluation of scenic, historical and cultural attractions (Minas Gerais, 2013).

## **6. Final considerations**

The appropriation of the RBSE territory by tourism, as discussed and presented through data and previous reflections, is a reality full of conflicts and challenges. It is notorious the importance of what the environmental, landscape and socio-cultural heritage of the RBSE represents, although from the tourism point of view, the environmental characteristics are the main elements that attract visitors. The presence of numerous protected areas make clear the urgent need to preserve water, environmental and landscape resources of the area, and tourism is an important and inherent part in this process.

Data on the profile of the tourist and the demand for attractive features in the RBSE indicate the need for integration of cultural and environmental aspects that make up the supply of regional tourism. Despite the existence of numerous traits and cultural events of interest throughout the region, its adequate provision for the tourist experience is still limited and undervalued in contrast of natural and cultural attractions.

At the end, it is necessary to point out the context of conflict on the conservation of natural resources and the appropriation of the site by economic activities established in the region, specially mining. The real estate speculation encouraged by the appreciation of some areas for tourism is also a strong agent of impact on the natural and cultural heritage. Ecotourism is pointed out in several studies as a complementary alternative, however, without proper supervision and planning can bring more harm than benefits to the conservation of characteristic biodiversity of the RBSE.



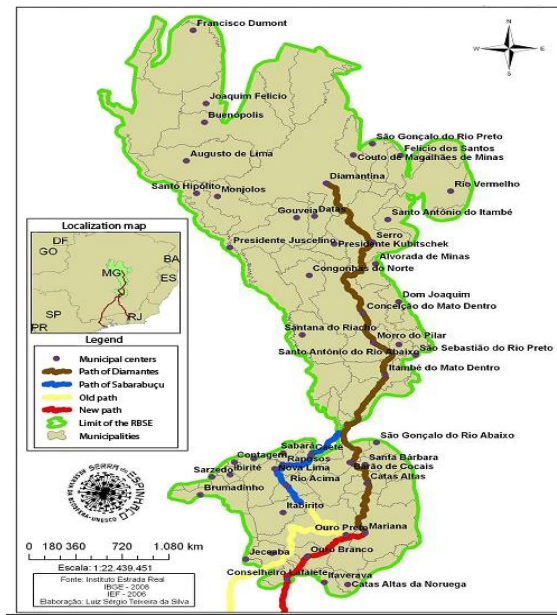


Figure 1. Map of the royal road in the RBSE

Source: Adapted from <http://rbse-unesco.blogspot.com.br/>

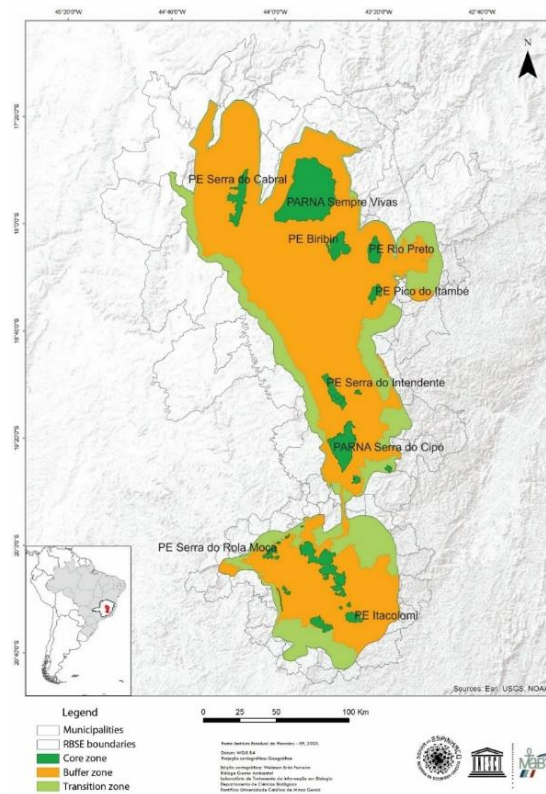


Figure 2. RBSE area

Source: Adapted from <http://rbse-unesco.blogspot.com.br/>

## References

- \_\_\_\_\_ (2008), "Um turismo que se quer sustentável", in OTTONI, C., Serra do Cipó, Sempre Viva.
- Abreu, M. M. de. (2015), *Territorialidade e Pertencimento: o olhar local sobre o Parque Estadual do Pico do Itambé – MG*. Dissertação de Mestrado, Rio de Janeiro, UFRJ.
- Andrade, M. A., Martins, C. S., Domingues, S. A. (org), et al. (2015), *Primeira Revisão Periódica da Reserva da Biosfera da Serra do Espinhaço*. Belo Horizonte, UNESCO.
- Barbosa, M.F.P. (2011), *Turismo e Desenvolvimento como Liberdade em Capivari/Serro (MG): possibilidades, limites e expectativas*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Becker, L. C. (2009), *Tradição e modernidade: o desafio da sustentabilidade do desenvolvimento na Estrada Real*. Tese de Doutorado em Ciência Política, Rio de Janeiro, Instituto Universitário de Pesquisas do Rio de Janeiro.
- Becker, L. C., Pereira, D. C. (2011), "O projeto Minas-Rio e o desafio do desenvolvimento territorial integrado e sustentado: a grande mina em Conceição do Mato Dentro (MG)", in Fernandes, Francisco Rego Chaves; Enriquez, Maria Amélia Rodrigues da Silva; Alamino, Renata de Carvalho Jimenez (eds), *Recursos minerais & sustentabilidade territorial: grandes minas*. Rio de Janeiro, CETEM/MCTI, 1, 163-198.
- Biodiversitas Foundation (2009), *Biota Minas: diagnóstico do conhecimento sobre a biodiversidade no Estado de Minas Gerais*, available at: <http://www.biodiversitas.org.br/index.htm> (consulted on: 11.02.2016).
- Braga, S. de S. (2011), *A Serra do Cipó: A complexidade de uma região moldada pelo Tempo, Turismo e a Geografia*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- CEDEPLAR/UFMG (2013), *Plano Regional Estratégico em torno de Grandes Projetos Minerários no Médio Espinhaço*. Brochura em 5 volumes, Belo Horizonte, FUNDEP.
- EWI (Epler Wood International) (2007), *Estudo de mercado, Relatório preliminar / abril 2007 turismo de natureza na Estrada Real Serra do Cipó (e Carrancas)*, available at: [http://www.rmbh.org.br/sites/default/files/PDDI\\_173.pdf](http://www.rmbh.org.br/sites/default/files/PDDI_173.pdf) (consulted on: 17.02.2016).
- Ferreira, R. A. (2010), *A Serra do Cipó/MG e seus vetores de penetração turística - um olhar sobre as transformações socioambientais*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Gomes, W.M. (2014), *Territórios Pré-históricos da Cordilheira do Espinhaço*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Gontijo, B. M., Pereira, E. O., Abreu, L. G. A. C. (2015), "As ecorregiões da Reserva da Biosfera da Serra do Espinhaço: elementos para o fortalecimento da conservação da biodiversidade". *Caderno de Geografia, PUC/MG*, 25, 18-33.

- Gontijo, B.M. (2003), *A ilusão do Ecoturismo na Serra do Cipó/MG: o caso de Lapinha*. Tese de Doutorado, Centro de Desenvolvimento Sustentável, Brasília, Universidade de Brasília.
- Gontijo, B.M. (2007), "As portas abertas da serra do Cipó". *Cadernos Manuelzão*, 2(3), Belo Horizonte, 11-17.
- Gontijo, B.M., Rego, J. F. (2011), "Por uma atitude turística pessoalizante", in Faria, I. F. (org), *Turismo: sustentabilidade e novas territorialidades*. Manaus, EDUA, 1-16.
- Goulart, E. M. A. (2001), *Nos ermos e nas brumas da Serra do Espinhaço*. Belo Horizonte, COOPMED.
- ICMBio (Instituto Chico Mendes de Conservação da Biodiversidade) (2009), *Plano de Manejo do Parque Nacional da Serra do Cipó*. Brasília, Governo Federal.
- Knegt, L.M.P. de. (2015), *Indicadores da Paisagem para a Ocorrência de Sítios Arqueológicos na Área Arqueológica de Serra Negra, Face Leste do Espinhaço*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Lacerda, M. de O. (2014), *Paisagem da Terra dos Diamantes: passado e presente a favor de uma reflexão prospectiva*. Tese de Doutorado, Belo Horizonte, UFMG.
- Lima, C.X. de (2013), *Caraça, a porta do céu e seu entorno: o estudo da paisagem para a conservação da biodiversidade*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Lopes, C.G.F. (2009), *Diferença e Conflito: uma perspectiva teórica para análise do fenômeno do turismo a partir das transformações do/no modo de vida dos lapinhenses*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Minas Gerais, Secretaria de Estado de Turismo. Pesquisa de Demanda (2011), *Relatórios por regiões de planejamento*, available at <http://www.turismo.mg.gov.br/dados-do-turismo-mineiro> (consulted on: 20.04.2013).
- Morais, M. S. de. (2014). *A realidade socioambiental imposta às comunidades locais pela criação e implementação dos Parques Estaduais do Biribiri e Rio Preto*. Tese de Doutorado, Belo Horizonte, UFMG.
- Moss, M.C.B. (2014), *Terras Incógnitas do Turismo – Um olhar exploratório sobre o fenômeno urbano, seus desdobramentos e os territórios desconhecidos na Reserva da Biosfera da Serra do Espinhaço: os núcleos urbanos de Lavras Novas, Serra do Cipó e Milho Verde*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Moura, A. M. F. (2000), *Serra do Cipó - MG. Ecoturismo e impactos socioambientais*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Murta, I.B.D. (2012), *Representações sociais do ambiente protegido: estudo multicaso no município de Ouro Preto/MG*. Dissertação de Mestrado, Belo Horizonte, UFMG.

- Nascimento, J.S. do (2010), *Estudo da ecologia da paisagem e biologia da conservação como base para o desenvolvimento e monitoramento de estratégias de conservação, por geoprocessamento e análise multicriterial. Área de Proteção Ambiental Morro da Pedreira- Serra do Cipó/MG*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Noronha, I. O. et al. (org) (2007), *Construção da Agenda 21 local: a comunidade unida planejando o desenvolvimento sustentável*. Belo Horizonte, SENAC.
- O'Connor, J. (1988), "Capitalism, nature, socialism: theoretical introduction", in *Capitalism, Nature, Socialism*. London, 1,(1), 11-38.
- Paula, F. L. (2011), "Sítios arqueológicos em Conceição do Mato Dentro: ancestralidade e presente", in *História Viva*, Belo Horizonte, Anglo Ferrous Brazil, 45-59.
- RBSE (Reserva da Biosfera da Serra do Espinhaço), available at <http://rbse-unesco.blogspot.com.br/> (consulted on: 17.02.2016).
- Ribas, R. P. (2015), *Análise Espacial da Conectividade Estrutural na Paisagem: Uma Aplicação no Mosaico de Áreas Protegidas do Espinhaço: Alto Jequitinhonha - Serra do Cabral*. Tese de Doutorado, Belo Horizonte, UFMG.
- Rodrigues, B.B. (2014), *Efetividade da legislação e gestão do patrimônio natural e cultural: estudo da RPPN Santuário do Caraça*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Saadi, A. (1995), "A geomorfologia da Serra do Espinhaço em Minas Gerais e de suas margens". *Geonomos, Revista de Geociências*, III(1), 41-63.
- Santos, A. S. P. (2016), *Des-ordenamento Territorial e Unidades de Conservação*. Tese de Doutorado, Belo Horizonte, UFMG.
- Scalco, R.F. (2009), *Desafios, paradoxos e complexidade na gestão do Mosaico de Unidades de Conservação da Área de Proteção Ambiental Cachoeira das Andorinhas, Ouro Preto/MG*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- Souza, D.E. de (2014), *Aspectos Socioambientais e a Gestão da APA Estadual das Águas Vertentes - MG*. Dissertação de Mestrado, Belo Horizonte, UFMG.
- The MAB Programme and the Biosphere Reserve of UNESCO*, available at: [http://www.rbma.org.br/mab/unesco\\_01\\_oprograma.asp](http://www.rbma.org.br/mab/unesco_01_oprograma.asp) (consulted on: 16.06.2016).