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The Cacique Upar Valley (Colombia) and Its Surroundings as A Natural and Cultural Setting for The Development of Geotourism and Geoeducation for Geoconservation Purposes

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Abstract

In the Caribbean region around Valledupar (Colombia), also called the city of the Santos Reyes del Valle de Upar and considered one of the main musical, cultural, and folkloric epicenters in the Colombian territory as it is considered the cradle of vallenato, the most popular musical genre of the country and currently a symbol of Colombian music. The identification of heritage sites and their geodiversity are very important for the selection of Colombian heritage sites because they have great aesthetic, landscape, scientific, and educational value for the transfer of geoscientific knowledge about different geological processes and can be used as geotouristic resources. The results show that Valledupar and its surroundings contain several heritage resources with exceptional values, so geoconservation measures must be carried out in all these sites for some purposes, as research and education, as well as the development of geotourism.

Keywords: geoconservation, geoeducation, geoforms, geotourism, Colombia.

Highlights: this research article indicates the geotourism potential of Valledupar (Colombia) as a natural and cultural setting for the development of geotourism and geoeducation for geoconservation purposes.

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El Valle del Cacique Upar (Colombia) y sus alrededores como escenario natural y cultural para el desarrollo del geoturismo y la geoeducación con fines de geoconservación

Resumen

En la región caribeña alrededor del Valledupar (Colombia), también llamada ciudad de los Santos Reyes del Valle de Upar y considerada uno de los principales epicentros musicales, culturales y folklórico en el territorio colombiano por ser considerada cuna del vallenato, género musical más popular del país y actualmente símbolo de la música colombiana. La identificación de sitios patrimoniales y su geodiversidad son muy importantes para la selección de sitios patrimoniales colombianos, debido a que tienen un gran valor estéticos, paisajístico, científicos y educativos para la transferencia de conocimientos geocientíficos sobre diferentes procesos geológicos y pueden ser utilizados como recursos geoturísticos. Los resultados muestran que Valledupar y sus alrededores contienen varios recursos patrimoniales con valores excepcionales, por lo que se deben realizar medidas de geoconservación en todos estos sitios para algunos fines, como la investigación y educación, así como el desarrollo del geoturismo.

Palabras clave: geoconservación, geoeducación, geoformas, geoturismo, Colombia.

Ideas destacadas: este artículo de investigación indica el potencial geoturístico de Valledupar (Colombia) como escenario natural y cultural para el desarrollo del geoturismo y geoeducación con fines de geoconservación.

O Vale do Cacique Upar (Colômbia) e seus arredores como cenário natural e cultural para o desenvolvimento do geoturismo e geoeducação para fins de geoconservação

Resumo

Na região caribenha ao redor de Valledupar (Colômbia), também chamada de cidade dos Santos Reyes del Valle de Upar e considerada um dos principais epicentros musicais, culturais e folclóricos do território colombiano por ser considerada o berço do vallenato, o gênero musical mais popular da país e atualmente um símbolo da música colombiana. A identificação de sítios patrimoniais e sua geodiversidade são muito importantes para a seleção de sítios patrimoniais colombianos, pois possuem grande valor estético, paisagístico, científico e educacional para a transferência de conhecimentos geocientíficos sobre diferentes processos geológicos e podem ser utilizados como recursos geoturísticos. Os resultados mostram que Valledupar e a sua envolvente contêm vários recursos patrimoniais com valores excepcionais, pelo que em todos estes sítios devem ser realizadas medidas de geoconservação para alguns fins, como investigação e ensino, bem como para o desenvolvimento do geoturismo.

Palavras-chave: geoconservação, geoeducação, geoforms, geoturismo, Colombia.

Ideias destacadas: este artigo de pesquisa indica o potencial geoturístico de Valledupar (Colômbia) como cenário natural e cultural para o desenvolvimento do geoturismo e da geoeducação para fins de geoconservação.

Introduction

The term geodiversity is extremely broad, but comparatively new with biodiversity, and a relatively recent concept, but widely used and disseminated, with a marked tendency to consider it as a synonym for "geological diversity", a meaning that today is very restrictive (Serrano Cañadas and Ruiz Flaño 2007). Geodiversity largely determines the biodiversity of a territory and the relationship between these two components of the natural heritage, based on the fact that each determines the development and evolution of the other. Likewise, it expresses the geological variety of a region around elements as geological structures (faults, folds, stratifications, foliations), geomorphological characteristics and natural resources (Carcavilla, López and Durán 2007; Gray 2013; Koh et al. 2014; Brilha et al. 2018). According to (Carcavilla, López and Durán 2007), the existence of elements that constitute the geological heritage of a region contributes as a source of resources for the social, economic, and cultural development of society. National Geographic in 2020, coined the term geotourism that defines "as tourism that supports or improves the geographical character of an environment, culture, aesthetics, heritage and the well-being of its residents" (National Geographic 2020). In the International Geotourism Congress held in the Arouca Geopark (Portugal) under the auspices of Unesco, discussions were held on Geotourism in Action, defining geotourism as: form of tourism based on strengthening the identity of a territory, considering its geology, landscape, environment, culture, aesthetic values, heritage and well-being of its inhabitants, under a sustainable concept that contributes to the benefit of future generations (Arouca 2011). However, numerous authors have approached this concept from different perspectives, providing different definitions (Carcavilla, López and Durán 2007; Hose 2008, 2011, 2012; Newsome and Dowling 2010; Quinlan Cutler 2011; Vasiljević et al. 2011; Ollier 2012). Therefore, geotourism must address the social, cultural, environmental, patrimonial, and geological definition of a region, not only for the observation and appreciation of the elements that constitute it, but also for the understanding of the processes that have acted in the evolution of the Earth (Letenski et al. 2009; Arouca 2011; National Geographic 2020) to identify, protect, and conserve its geosites (Quinlan Cutler 2011).

Tourism has contributed to the increase in the importance of the development of the Colombian economy, generating new sources of employment, social development, strengthening of national destinations, greater geographic connectivity, support for environmentally friendly projects and improvement of the hotel offer. highlighting the unique beauty of the region in the surroundings of Valledupar (Colombia), also called the city of the Holy Kings of the Upar Valley and considered one of the main musical, cultural, and folkloric epicenters in the Colombian territory for being considered as the cradle of vallenato, the most popular musical genre in the country and currently a symbol of Colombian music. Annually, at the end of April and the beginning of May, vallenato attracts thousands of visitors from around the world during the Vallenata Legend Festival, the highest vallenato event. On the other hand, it has sites of geological interest that could be used as a resource for geotourism, ethnic, environmental, and religious diversity. The objective of this work is to promote scientific research in the Cacique Upar Valley (Colombia) and its surroundings, which can become a natural and cultural setting for the development of geotourism and geoeducation for geoconservation purposes, attracting the attention of tourists through the use of elements of heritage value as a new strategy for the socio-economic development of the region by means of several initiatives that favor employment, investment, and business opportunities. However, it is necessary the financial support through public and private sector to improve infrastructure and resources for developing activities of geotourism and geoeducation.

Study Area

The study area of 1550 km^2 de extension is located in the northwest of Colombia, in the Caribbean plain, in the surroundings of the municipality of Valledupar department of Cesar; located between latitude 07°41'16" and 10°52'14" North and longitude 72°53'27" and 74°08'28" West; It borders on the north with the departments of Magdalena and La Guajira, on the east with the Republic of Venezuela and the department of Norte de Santander, on the south with the departments of Santander and Norte de Santander, and on the west with the departments of Bolívar and Magdalena (Figure 1).

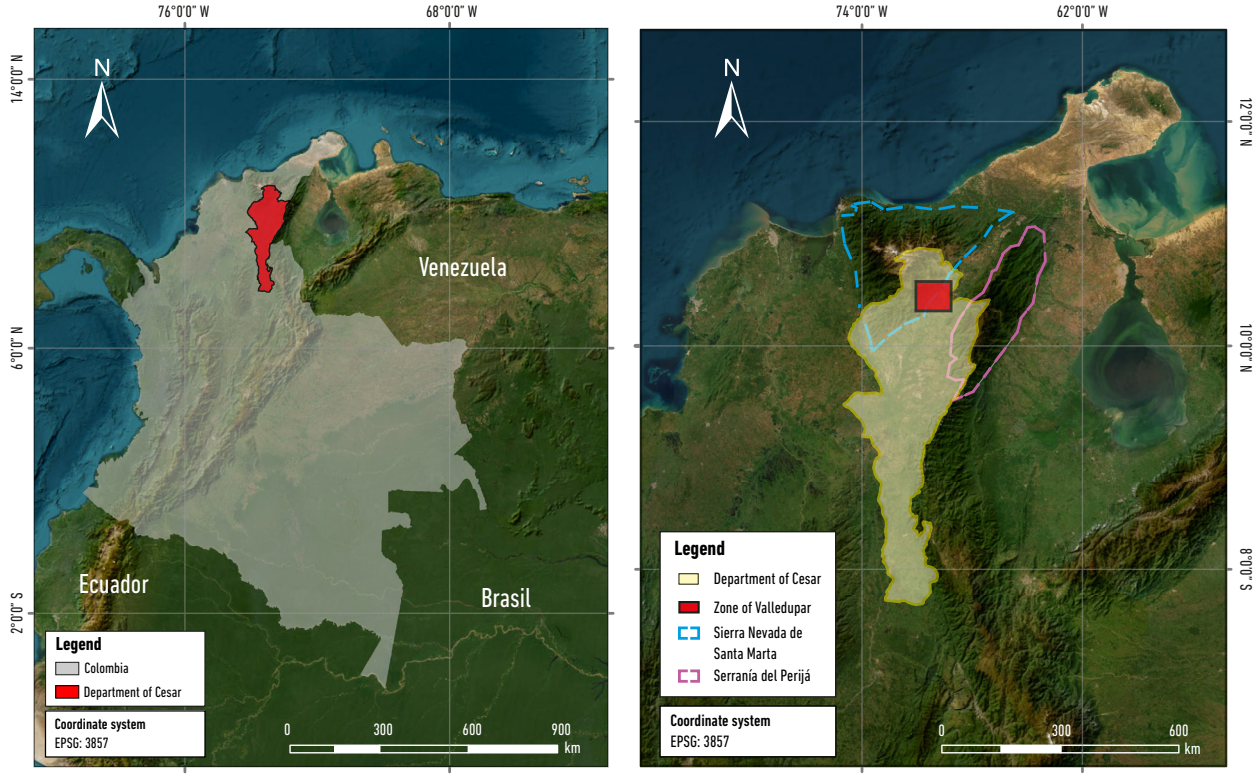

Figure 1. Geographical location of the study area.
Data: IGAC (2023).

Geological Setting

The study area is in the Colombian Caribbean region and is part of the coastal strip adjacent to the northwestern foothills of the Sierra Nevada de Santa Marta (SNSM) and northeastern Serranía de Perijá (SP). It exhibits characteristics of the imposing alluvial deposit plain landscape immersed in the Cesar River valley (with several evidences of the action of erosion and deposition processes that have contributed to the development of a typical geomorphology), including a mountainous domain of the foothills of SNSM and the SP with abrupt topography that constitutes an excellent scenario for understanding the subduction processes along the northwestern edge of South America, showing a very complex tectonic configuration due to the interaction between the oceanic and South American continental plates of the Caribbean (Cortés, Angelier and Colletta 2005; Audemard and Audemard 2002). The SNSM is mainly composed of igneous, metamorphic, and sedimentary rocks, the former being more abundant, while the latter are restricted to the southernmost part of the Sierra; The age of these rocks varies from the Precambrian to the Cretaceous, finding sediments from the upper Tertiary and recent alluviums in the Cesar River Valley: Granulite de los Mangos, Green Keratophidic Porphyries, Jurassic Granitoids, Atanquez Batholith, Nueva Lucha Pluton, Cretaceous Porphyry, Lacolito de Atanquez, Espilitas and other Volcanic Rocks or Hypoabisales, Ignimbritic Volcanic (Ignimbritas de La Paila, Caja de Ahorros, Los Clavos and La Piña), Volcanic Riolitico (Riolitas de Los Tábanos and El Golero, El Vitrófiro Riolitico Negro), Sequence of the Cuchilla Carbonal, Corual and Los Indios Formations, Guatapurí Formation, Cogollo Group, and Arjona Sedimentites (Tschanz et al. 1969) (Figure 2).

The Serranía de Perijá is essentially formed by metamorphic and sedimentary rocks whose ages are between the Cambro-Ordoviciano and the Recent: Metasedimentos de Manaure, Metasedimentitaa La Virgen, Cachirí Group, Fifth Sedimentary Unit, Norean Formation, Río Negro Formation, Cogollo Group, La Luna Formation, Molino Formation, Barco Formation, Los Cuervos Formation, Cuesta Formation (Figure 2).

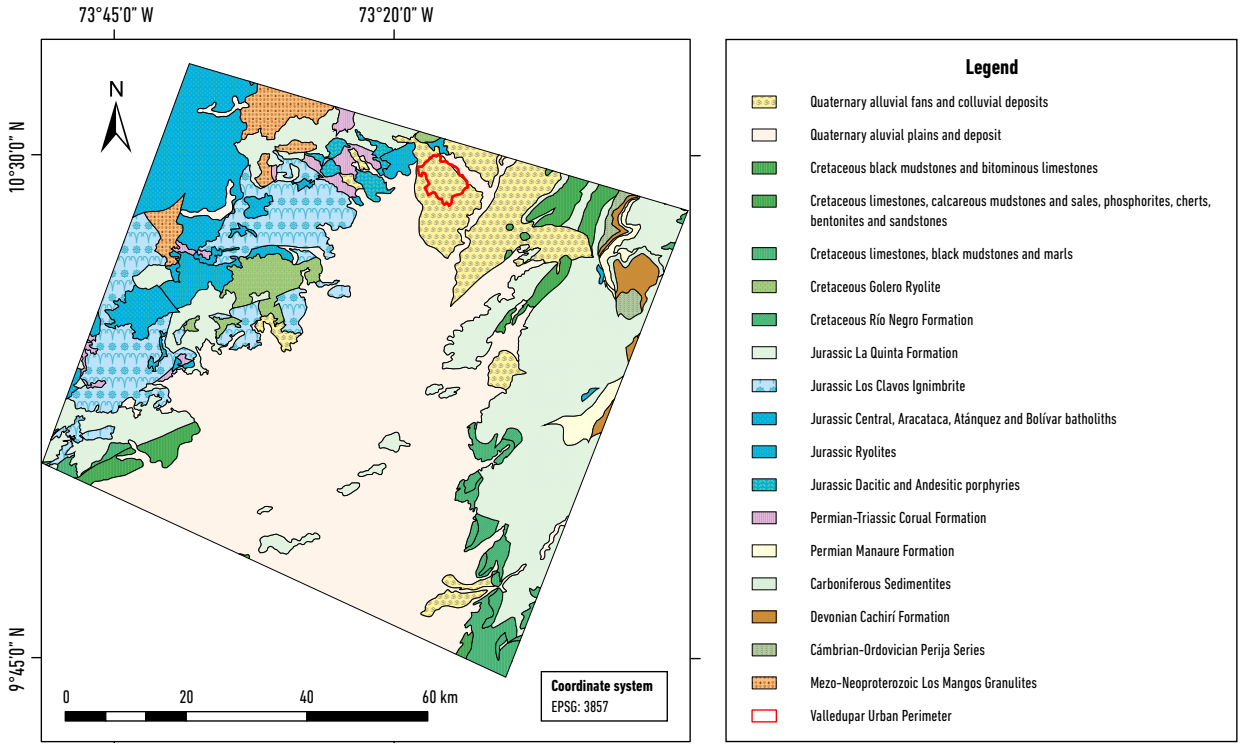

Figure 2. Generalized geological map of the Cesar-Ranchería basin. This diagram highlights the most important structures of the Cesar sub-basin. *Data:* Arias and Morales (1999); Instituto Colombiano de Geología y Minería et ál. (1988).

Methodology

The methodology of this study was based primarily on the search, compilation, and exhaustive examination of publications made at the national and international level in the different academic and scientific databases, institutional repositories, and web pages. Subsequently, a fieldwork was carried out to identify, inventory, characterize, value, and qualitatively evaluate those of selected geological sites of interest around Valledupar, Cesar department (Colombia) (Adriansyah-Nazaruddin 2020). For the selection of geological sites with importance for geological heritage, several criteria inspired by some researchers were considered, as (Brocx and Semeniuk 2007; Djurović and Mirela 2010; Brocx and Semeniuk 2011; Adriansyah-Nazaruddin 2020), which are suitable, among others: (i) unique geological sites common of rare occurrence; (ii) representativeness of geological characteristics and processes; (iii) geological features of scientific value; (iv) geological features of educational value; (v) geological features and landscapes with aesthetic value; (vi) geological features with existing and potential recreational uses; and (vii) sites of cultural or historical importance (Adriansyah-Nazaruddin 2020).

The field stage allowed the identification and characterization of sites that could be included in the list of possible geosites and recognition of new potential geosites. In addition, the areas of interest were mapped at a scale of 1:25,000, using topographic maps 1:25,000 of the Agustín Codazzi Geographical Institute (IGAC), satellite images of Google Earth (2020), Geological Map of the Cesar department developed by the National Institute of Investigaciones Geológico Mineras (INGEOMINAS) (Arias and Morales 1999; Ríos et al. 2020; Manco-Jaraba et al., 2023) to identify the main lithostratigraphic units and regional structures, regional analysis, and the mapping of geological faults that were performed by interpreting shadow maps with terrain models downloaded from NASA - Alaska Satellite Facility (Ríos et al. 2020)(NASA 2020) and desk review of regional research (Lascarro-Navarro et al. 2020).

The characterization was carried out by means of detailed field observation and the description of the sites and characteristics supported by information from the literature. Each site must be characterized to obtain the following data, according to Brilha (2016): (i) name of

the site; (ii) geographic location (including GPS coordinates); (iii) accessibility; (iv) geological description; (v) most notable geological features; (vi) owner and legal protection (if applicable); and (vii) fragility, vulnerability, and limitations (when applicable). Other significant natural (as specific animals and plants, if any) and man-made (as facilities and infrastructure) elements at the sites will also be mentioned in general to support the characterization (Adriansyah-Nazaruddin 2017, 2019, 2020).

There is a wide range of methods and models that have been applied in recent years for the assessment and evaluation of potential geosites of the geological heritage for the development of geotourism and geoeducation for purposes of geoconservation. In this work, the qualitative approach was carried out to scientifically evaluate the selected geological interest sites in the study area. The qualitative approach focuses on some geological heritage values (Intrinsic Value, Cultural Value, Aesthetic Value, Economic Value, Ecosystem Value, Scientific Value, Educational Value), mainly scientific (for the investigation of geological meanings and interests), educational (for trainning and educate people related to earth science or geology, future earth scientists / geologists, students of other disciplines, and the general public), aesthetic (related to the beauty of the sites or characteristics), recreational (potential for recreational and tourist activities), cultural (related to cultural and historical values), economic (related to the financial value of the characteristics), functional (the uses or functions of the sites or characteristics) and other values when appropriate (Gray 2004, 2005; Adriansyah-Nazaruddin 2020).

Natural Heritage

Geodiversity

Valledupar belongs to the northeast of the Colombian territory that comprises a deformed continental domain located at the limit of three major tectonic plates: The South American plate, the Nazca plate, and the Caribbean plate (Figure 2). The relative movements of these plates during the Cenozoic era gave rise to the orogenic system of the Northern Andes, composed of different mountain ranges separated by valleys and intramontanean depressions (MéGard 1987; Meijer and Wortel 1992; Chang, Stock and Molnar 1992; Coblentz and Richardson 1996; Taboda, Dimaté and Fuenzalida 1998), which contributed to the development of a great geodiversity in the study area.

The identification of interest geological sites in the Cacique Upar Valley (Colombia) and its surroundings and its geodiversity are very important for the definition of an inventory of Colombian heritage sites. Thereafter, these geosites may be part of the geological heritage of a region if they are or contain features of international importance to elucidate its geological history (Koh et al. 2014). The potential geosites in the study area are briefly described in Annexed 1. The proposed geosites have an added value thanks to their attractive landscape, biological, geological, cultural, social richness and due to their uniqueness, beauty, and rarity they can be used as geotourism resources. The geosites are illustrated through photographs in a didactic and explanatory way, revealing the most important geological agents that have acted in the modeling of the current landscape. They reveal the crystalline and sedimentary rocks of the basement, which preserve important evidence about the geological evolution of the Sierra Nevada de Santa Marta and Serranía de Perijá and promote the opportunity to admire the fascinating coastal geomorphology. On the other hand, they contain a very important scientific, didactic, and cultural value. They would be very useful in limiting the early evolution of the earth's crust, the magmatic processes, tectonics and surface forces that contribute to this cortical evolution, the relationship between metamorphism, magmatism and deformation, as well as the tectonothermic history that has occurred, partial fusion in the tectonic development of orogenic belts, including magmatic arcs, exhumation processes and tectonic denudation that have favored the extensive retrograde metamorphism that has affected metamorphic rocks in their most recent history, the hydrothermal history of paleofluids that have circulated through the earth's crust, mineral deposits associated with magmatism and metamorphism, and the history of fluvial processes that have played an important role in shaping the landscape.

Geodiversity in the study area reveals several physical processes operating on planet Earth and brings a great number of goods and services that may be exploited by humans in a sustainable way to ensure its conservation for future generations. On the other hand, geoheritage is made up of elements of geodiversity that have been specifically identified for the specific value they present for conservation purposes, particularly if they are threatened by human activities. In the region of interest, the geoheritage, which is highly attractive for regional

development, is represented by elements of valuable geomorphological (landforms), sedimentological (quaternary and calcareous deposits), stratigraphic (complex stratigraphic relationships), paleontological (fossils of ammonites and bivalves), petrological (sedimentary rocks, igneous, and metamorphic of the old crystalline basement), mineralogical (minerals of industrial interest), structural (Bucaramanga-Santa Marta Fault System and Cesar-Cesarito Fault System), and tectonic (neotectonic) significance. These elements are very useful to understand several geological phenomena, contributing to the geoscientific knowledge of this region to support those who must design strategies that contribute to the sustainable development and territorial management of this region of Colombia.

In the municipality of Manaure, department of Cesar, there is a system of natural cavities located in the rock complex known as Perijá terrain (Miller 1960), associated with carbonate sedimentary rocks (limestone) of the Cretaceous belonging to the Cogollo Group (Garner 1926; Etayo-Serna et al. 1983) with gray to brown tones (Figure 3a), high percentage of allochemicals corresponding to carbonate substitution and recrystallization, floating in micritic and sparitic matrix with internal forms of microorganisms that allow them to be identified as spicules, bivalves, remains of ostracods, algae, brachiopods, gastropods, and bryozoans, classified as biomicrite (Folk 1962) or grainstone (Dunham 1962), illustrating an unrivaled beauty, richness, and rarity of the underground world, endocarst geoforms (speleothems: parietal, zenith and paving) (Figures 3b-d), and exocarstic (sinkhole, lapiaces, uvalas, poljies) (Figure 3e) (Manco, Robles and Rojas 2017; Manco-Jaraba et al. 2018), which keep in their memory various physical, chemical and biological processes that have allowed the development of different ecosystems in the earth's crust. In addition, it has a geomorphological richness imposing the tectonic dynamism of the region, highlighting: (i) slopes with steep slope, which occupy mainly the highest parts of the Manaure river basin, forming elongated strips, with broken and steep relief, with topographic slopes greater than 45° (Figure 3f), (ii) slopes with moderate slope, which form elongated slopes with generally broken and undulating relief, with topographic slopes between approximately 20° and 45° (Figure 3g), (iii) hills, that make up sectors of low-rise terrain, isolated or extensive as a whole, are located in the upper sectors of the mountains and in the lower part or base of the slopes of the same, and are characterized by presenting a wavy relief and in steep sectors (Figure 3g), (iv) colluvions, located in some sectors of the slopes with topographic slopes between approximately 15° and 30°, and (v) fans and terraces, located in the mouth sectors of streams and minor tributaries of moderate to flat topography (Figure 3h).

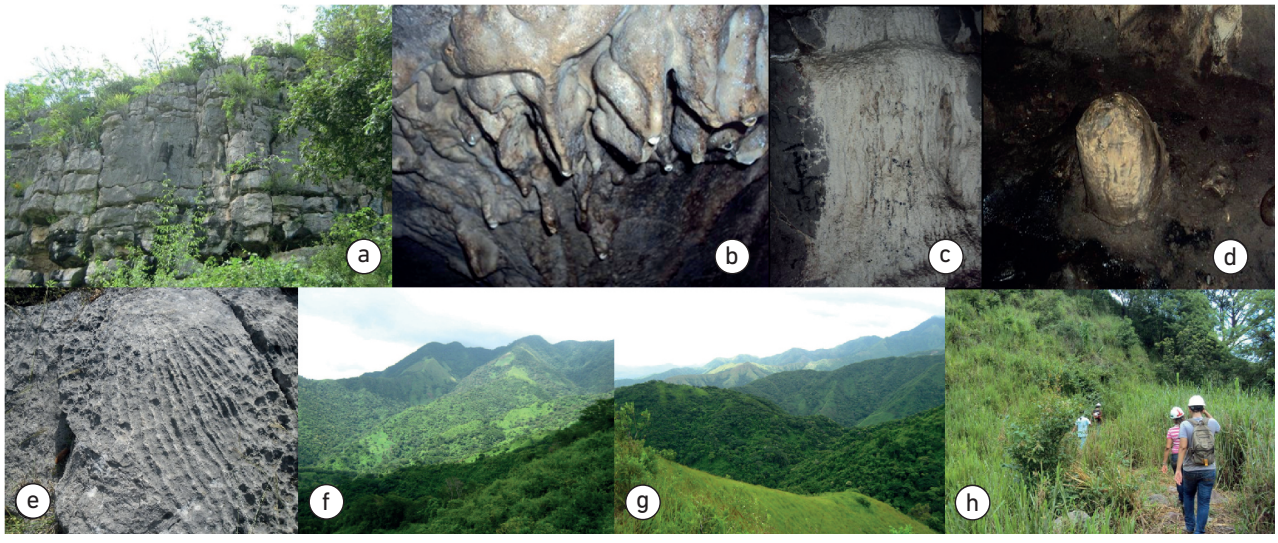

Figure 3. Potential geosites of Manaure, department of Cesar (Colombia).
Source: Rojas-Martínez (2020).

Los Besotes the Eco Park, is located north of the Guatapurí river, in the southeastern corner of the rocky massif of the Sierra Nevada de Santa Marta, it is part of the metamorphic igneous complex, characterized according to Ortega-Montero et al. (2019) by the occurrence of metamorphic rocks of different degrees and Precambrian, felsic and intermediate plutonic ages of the Triassic-Jurassic; acidic vulcanites and some younger sedimentary rocks. The tectonic limits correspond to three large regional faults; to the north with the Falla de Oca, to the west by the Falla Bucaramanga-Santa Marta, and to the east with the Falla del Cesar. Within the outcropping lithological units, Paleozoic sediments stand out, composed from base to roof of green sandy shales, medium-grained yellowish-white sandstones and well-stratified fossiliferous black limestones, which outcrop to the NW of the confluence of the Seco river with the stream. the Hoyada (Figure 4a); Guatapurí Formation, made up of extrusive rocks, basalts, andesites, tuffs and volcanic ashes towards the base, and siltstones, arenites, arches with volcanic intercalations, reddish, purplish and occasionally greenish towards the ceiling, that emerge developing an elongated and narrow mountain range direction NE that intercepts the head of the Sabanas stream (Figure 4b); Porphyritic Dacite, made up of hypo-abyssal plutons of dacitic - andesitic composition, corresponding to the geological unit called "Green Keratophilic Porphyries" of Upper Triassic age (Tschanz et al. 1969) that outcrops in a N-NE direction following the course of Arroyo El Mamón to the SW of the area and intercepts the study area at its extreme south west (Figure 4c).

Figure 4. Potential geosites of the Eco Park Los Besotes.
Source: Ortega-Montero (2017).

In the Cerro de La Paz, department of Cesar, located on the road that connects the municipality of La Paz with the department of La Guajira, Cretaceous stratigraphic sequences of limestone rocks belonging to the Cogollo Group emerge, consisting of 95 % calcium, 0.6 % silica, 4.40 % amorphous, and others; in addition, it has small features of Carstification processes (Figure 5a), alternations of biomicritic, micritic and dysmicritic limestones, presence of fossils (Figure 5b), with thin intercalations of shales (Figure 5c), and calcite veins, being suitable for the manufacture of cement, alkalizing material and stone aggregate (Manco, Rojas and Gomez 2014).

Figure 5. Hill of La Paz.
Photography by Manco Jaraba, Ríos-Reyes and Oscar Mauricio Castellanos-Alarcón, march 2018.

The Guatapurí river is located to the north of the municipality of Valledupar, and despite having high biological, ecological, and cultural interest, it is considered the only natural laboratory of igneous rocks in Colombia, due to the richness and diversity generated by extensive magmatic activity that took place in the Triassic and Jurassic periods, accompanied by large volumes of volcanic and volcanoclastic rocks. During the early to mid-Jurassic the extensive magmatic arc that occurred at the SNSM generated two very broad belts of granitoids. The first one occurred in the SNSM towards the central part with intermediate composition and the other towards the southern part with acid composition (Tschanz et al. 1974; Quandt et al. 2018). These granites were accompanied by a back-arc basin with abundant volcanic and volcanoclastic rocks southeast of the SNSM (Radell 1962; Colmenares et al. 2007; Bayona et al. 2007). The intense magmatism in much of the North Andean region is explained by two models: the first proposes this intrusive and effusive igneous activity product of the subduction of an oceanic plate under the South American Craton (Toussaint and Restrepo 1976; Barrero 1979). The second involves cortical thinning, mantle bulging, and a supracontinental distention zone (Estrada 1972). In the Candela river and Mojao river, igneous rock outcrops are evident (Figure 6a), highlighting rhyolite, granite, quartzomonzonite, quartzlatite, basaltic dikes (Figure 6b) and geoforms of fluvio-glacial origin (Figures 6c-f).

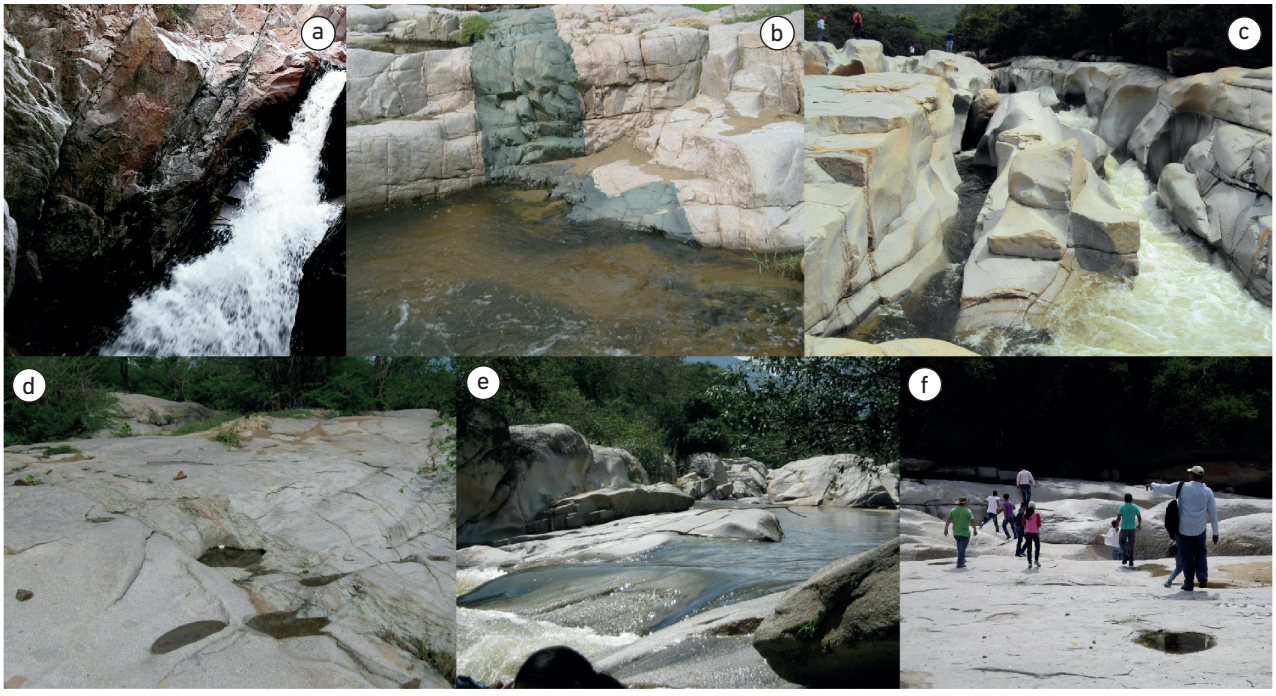

Figure 6. Geosite of the Candela river and Mojao river.
Source: Rojas-Martínez (2020).

The geotourism values of this region will depend on the valuation of the sites of geological interest, that can be evaluated according to criteria of accessibility, representativeness, state of conservation, rarity, scientific knowledge, and educational value (Solarska and Jary 2010).

Biodiversity

The Cesar river valley belongs to the tropical dry forest climate classification, being covered by a heavily intervened clear forest where scattered trees and artificial grasses alternate to support the important bovine herd existing in its fields (Instituto Alexander von Humboldt 1998). The most representative species of the region, which correspond to tropical dry forest, are represented by the genera Cassia, Tabebuia, Crescentia, and Inga, among others with common names as acacias (*Delonix regia* and *Acacia pennatula*), cañaguates (*Tabebuia chrysea*), guanábanos (*Annona*

muricata), cedars (*Cedrela odorata*), ceibas (*Ceiba pentandra*), and an important variety of very foreign species have already adapted to the local environment as mangoes, eucalyptus, and citrus (Rodríguez, Rueda and Gutiérrez 2008; Celis 2018). In particular, the city is considered one of the most wooded or green in the country (Celis 2018; Arias 2019), in this regard, reference can be made to the local culture that imposes the planting of trees on the fronts and courtyards of the houses almost as an obligation; it is strange in the city to find a house or building without some kind of tree. The presence of fruit trees in public areas as parks, platforms, and avenue separators are also important, in this case at the initiative of the municipality. The most common tree is the mango (*Mangifera indica*), followed by cañahuates (*Tabebuia chrysea*), ceibas (*Ceiba pentandra*), oaks (*Tabebuia rosea*), totumos (*Crescentia cujete*), acacias (*Delonix regia* and *Acacia pennatula*), cotoprix (*Talisia oliviformis*), cardamoms (*Elettaria Cardamomum*), and rubbers (*Ficus Involuta*) (Rodríguez, Rueda and Gutiérrez 2008; Celis 2018). On the other hand, the wild fauna is currently very affected, felines and mammals as the tigrillos (*Leopardus pardalis*) and deers (*Cervus elaphus*) are currently a rarity, the reptiles represented by iguanas (*Iguana iguana*), lizards (*Ameiva praesignis*), and snakes as boas (*Corallus ruschenbergerii*), false corals (*Erythrolamprus bizona*), and mapan (*Bothrops atrox*). As for the birds, some birds of prey as owls and hawks, and others as pigeons, little birds, parakeets, and hummingbirds stand out. As for birds, owls (*Bubo virginianus*) and hawks (*Accipiter nisus*) stand out, as well as doves, little birds, parakeets, and hummingbirds.

The Los Tananeos Civil Society Natural Reserve, is an organization based in the municipality of Manaure Balcón del Cesar that has been fighting for the preservation of the environment, simply by ceasing to destroy the natural habitat of the species and promoting their regeneration. The reserve is the habitat of a great diversity of fauna and flora, as tropical birds (more than 200 species), mammals as flying squirrels (*Sciurus vulgaris*), bats (*Minopterus schreibersii*) or monkeys (*Alouatta Seniculus*), and trees as Tananeos (*Peltogyne purpurea*), Ceibas (*Ceiba pentandra*), Caracolies (*Anacardium excelsum*), Cedros (*Cedrela odorata*), Laureles (*Laurus nobilis*), and Willows (*Salix humboldtiana*), are some of the species that you will discover while walking the trails. Highlighting the priority birds of this nature reserve are Azulejo glauco (*Glaucous Tanager*) (Fiure 7a), Golondrina azul (*Swallow Tanager*) (Figure 7b), Pinzón alidorado (*Golden-winged Sparrow*) (Figure 7c), Guacamaya verde (*Military Macaw*) (Figure 7d), Periquito verde (*Green-rumped Parrotlet*) (Figure 7e), Saltarín coludo (*Lance-tailed Manakin*) (Figure 7f), Carpinterito escamado (*Scaled Piculet*) (Figure 7g), Hormiguero batará (*Black-backed Antshrike*) (Figure 7h), Cucarachero pechirrufo (*Rufous-breasted Wren*) (Figure 7i), Hornero albañil (*Pale-legged Hornero*) (Figure 7j), Colibrí rubí topacio (*Ruby-Topaz*) (Figure 7k), Elaenia selvática (*Forest Elaenia*) (Figure 7l) (Reserva Natural Los Tananeos 2020a, 2020b). However, indiscriminate hunting and trafficking affect the possibility of native fauna reaching an acceptable population despite the good results in this nature reserve. There, the restoration of the ecosystem balance has allowed the preservation of wild species as tigrillos (*Leopardus pardalis*), deers (*Cervus elaphus*), armadillos (*Dasypus novemcinctus*), and other small animals in their natural habitat. However, indiscriminate illegal hunting and trafficking put them in danger again. Even though this natural reserve is dedicated to environmental conservation and sustainable development, the effectiveness of this initiative depends mainly on sensitizing local communities, national, and foreign tourists from the environmental point of view, assuming their social responsibility to mitigate the environmental impact and contribute to the improvement of the quality of life of those who live there. The transfer of knowledge is important to publicize the valuable meaning of the biodiversity that exists in the region, as Colombian regulations are not enough, considering that the Environmental Police of our country has seized numerous species of birds, reptiles, and mammals.

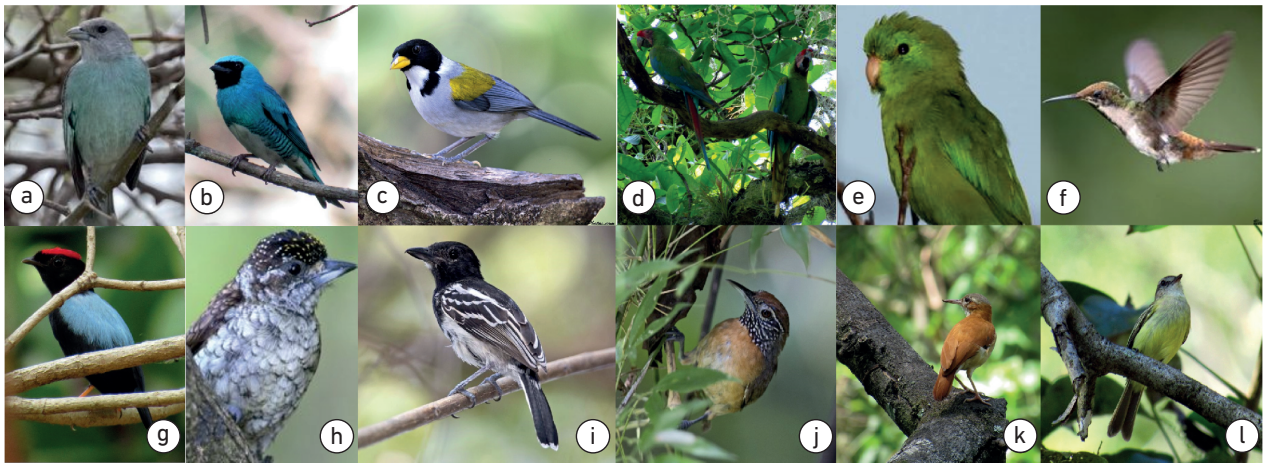

Figure 7. Priority birds of the Los Tananeos Nature Reserve.
Source: Reserva Natural Los Tananeos (2020a).

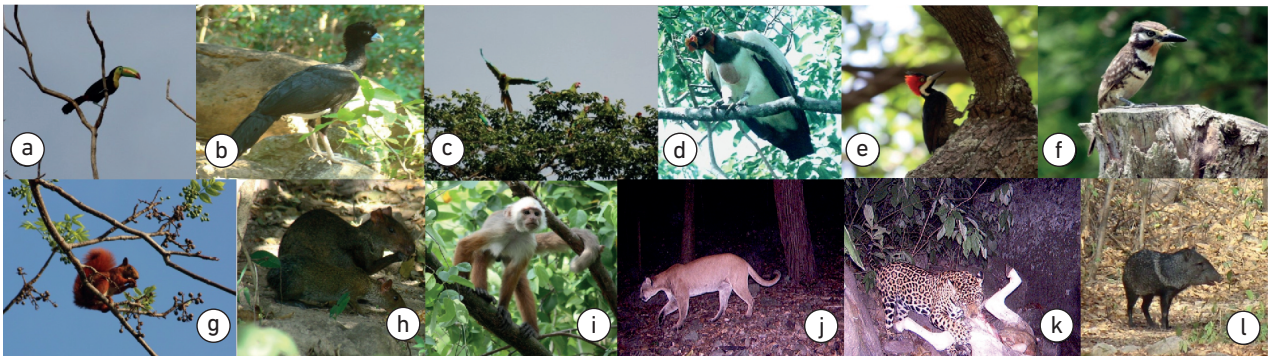

Figure 8. Fauna of the Eco-park Los Besotes Regional Park.
Source: Fundación Ecológica Los Besotes (FUNDEBES) (n.d.).

The Eco-park Los Besotes Regional Park is located 9 km from Valledupar in the direction of Patillal, between the valleys of the Cesar and Ranchería rivers, and represents an important portion of the tropical dry forest in the foothills of the Sierra Nevada de Santa Marta, in an altitudinal range that reaches its highest point in the so-called "Cerro Boquinete" or "Cerro de Los Cóndores" at 1680 meters above sea level, where the watershed between the Aguas Blancas stream and the Sabana de Las Minas stream is located; furthermore, it constitutes one of the greatest tourist attractions in the region, within which today a large part of its biodiversity is treasured, protecting the best of the Colombian tropical dry forest (Ropero 2019; Fundación Ecológica Los Besotes (FUNDEBES) n.d.). At the beginning of the 1990s, the cultivation of cotton and cattle ranching had already wreaked serious damage and mining speckled in black an area considered sacred by the indigenous and ancient inhabitants of these generous lands. Today, the dream has become a tangible reality. The Eco-park Los Besotes is recognized as a point of reference by Colombian researchers and environmentalists, but also as a possible eco-tourism destination in the near future due to the great flora and fauna biodiversity (Berdugo and Rangel-Ch 2015; Suarez 2018). Within this is a dense and varied vegetation that hosts more than 250 species of birds (migratory and indigenous) throughout the year, highlighting toucans (Figure 8a), Colombian Paujils (*Crax alberti*) (Figure 8b), macaws (*Ara ararauna*) (Figure 8c), condors (*Vultur gryphus*) (Figure 8d), woodpeckers (*Melanerpes formicivorus*) (Figure 8e),

dotted bobs (*Hypnelus ruficollis*) (Figure 8f) and more than 50 species of mammals and other typical species of the Caribbean in danger of extinction, as flying squirrels (*Sciurus vulgaris*) (Figure 8g), ñekes (*Dasyprocta fuliginosa*) (Figure 8h), corn monkeys (*Sapajus apella*) (Figure 8i), cougars (*Puma concolor*) (Figure 8j), jaguars (*Panthera onca*) (Figure 8k), and zainos (*Pecari tajacu*) (Figure 8l) in an incomparable space (Barbosa Castillo et al. 2008; Rodríguez, Rueda and Gutiérrez 2008). There, the silence and peace of the place surprises visitors, with 14 kilometers of trails that run through the park like small veins that allow you to circulate through the Sierra Nevada de Santa Marta massif, between the Murillo hill and the Los Besotes hill, and access points almost 2,000 meters high in the Alto del Cóndor. Each of these trails offer unexpected gifts for the visitor: viewpoints, observatories, forests where monkeys are usually found, hills, streams, and waterfalls that fill the visitor with joy and amazement.

Cultural Heritage

Besides the natural attractions discussed above, the area has considerable cultural and historical heritage sites, described below. Valledupar constitutes one of the main musical, cultural, and folkloric epicenters of Colombia as it is the cradle of vallenato, the most popular musical genre in the country, currently a symbol of Colombian music, consisting mainly of accordion, box, guacharaca, and interpreter. The Alfonso López Pumarejo Square (Figure 9a) represents one of its most emblematic sites, and, on the Francisco El Hombre Stage of this square, the Festival of the Vallenata Legend and the Festival del Dulce that have had a long cultural tradition and importance in the region are carried out (SINIC n.d.; Marbello 2016; Castilla et al. 2018).

As you walk through it, you will be able to remember historical landmarks that represent a unique and longed moment for those born in Valledupar and visitors, among which the flagship song of the Festival of the Vallenata Legend "Sentimental Absence" by the composer Rafael Manjarrez, the sculpture "La Revolución en Marcha" made in bronze by Rodrigo Arenas Betancourt (Figure 9b), the history of the city through the reading of the plaques located in the houses of colonial architecture, as well as the renowned lush mango tree turned into a symbol of identity of the square where people gather to talk stand out.

The Church of La Inmaculada Concepción (Figure 9c) was built in the 17th century and is located on one side of the Alfonso López Pumarejo Square, in the heart of the old city, being the only parish since the founding of the city. It was restored a few years ago with the patronage of the Ministry of Culture. The Callejón de la Purrututú is one of the most famous alleys located in the Cañaguate neighborhood, today it is one of the few sites that is originally preserved with inspiration for the bohemians. It is in the historic center of Valledupar. The Museum of the Accordion is an exhibition dedicated to the accordion, an instrument that has given so many glories to the region of vallenato music. This museum was born at the initiative of Alberto "Beto" Murgas, a contemporary minstrel, who from 1982 began as a collector until completing 20 accordions of different types that are a true treasure. Inside the museum you will find an exhibition of elements as the Sheng, a Chinese musical instrument that originated the accordion, the indigenous bagpipe, the dulzaina, a variety of accordions with different keyboards and different designs as: the diatonic accordion, the chromatic one, the piano model, the concertina, and the bandoneon.

The Vallenata Legend Park "Consuelo Araujo Noguera" (Colacho Mendoza Stage) (Figure 9d) is an ecological, cultural, and touristic site that has a capacity for 17,000 people and in which the final of the Vallenato Festival takes place since 2004.

The Siren of Hurtado and the Guatapurí river (Figure 9e), is a work made by the master Jorge Mestre and is located on a rock on the banks of the Guatapurí river, referring to the silhouette of this mythical figure.

The Guatapurí river (Figure 9f) is the quintessential Valduparenses spa (or Vallenatos "popular name"), from which visitors will be able to enjoy its landscape, as well as its typical gastronomy, among the sausages stand out the butifarra con bollo (Suarez 2018). It is born in the Curigua lagoon, in the Sierra Nevada de Santa Marta and is surrounded mainly by igneous rocks.

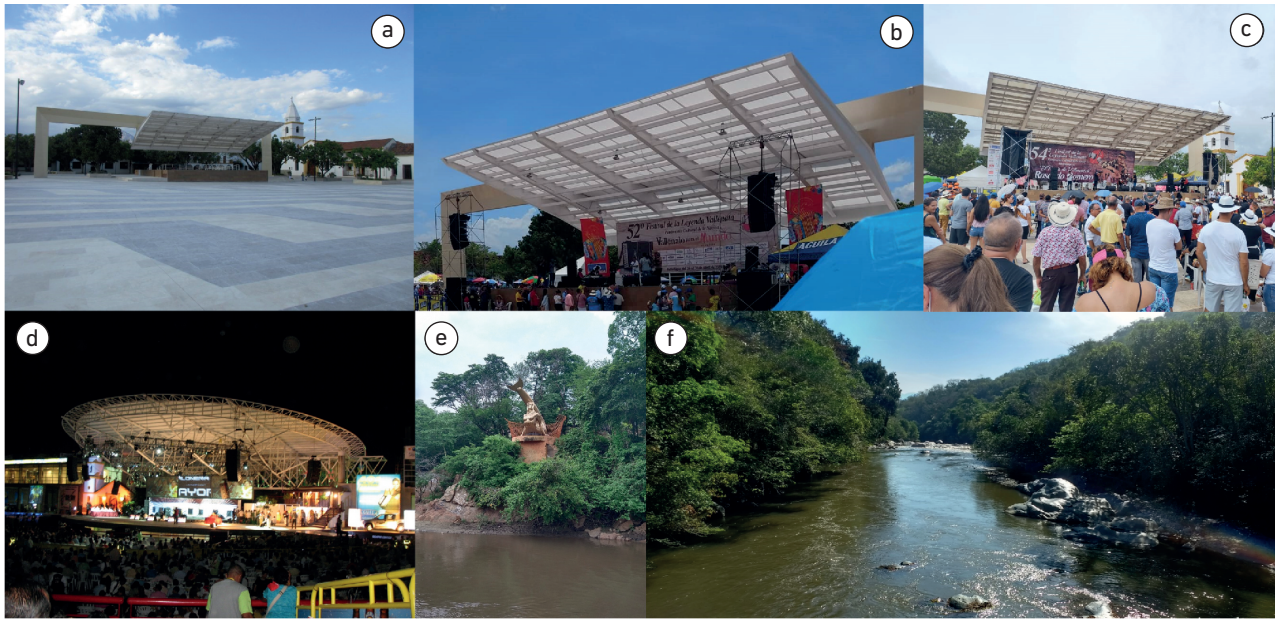

Figure 9. Emblematic places of the Vallenato Festival.
Photography by Dino Carmelo Manco Jaraba, Carlos Alberto Ríos-Reyes and Oscar Mauricio Castellanos-Alarcón, March 2018.

The events that occurred due to the loss or change of custody (Figure 10a) in the spanish colonial church Capilla Doctrinera de San Antonio de Padua —National Heritage of Colombia as "Assets of Cultural Interest, Architectural Heritage"—, located in the village of Badillo north of Valledupar in the foothills of the Sierra Nevada de Santa Marta and on the banks of the Cesar river, as well as the natural waters that carve the rocky massifs of the Badillo river (Figure 10b), have been a source of inspiration for poets, singers, composers and writers who have based their artistic creations on them. Among them stands out a vallenato at the pace of a walk "La Custodia de Badillo" composed by Rafael Escalona, where in his lyrics he masterfully collects the disagreement that the Badilleros had, seeing that their custody, a large and heavy colonial piece, was changed for a small and light one. The song "El Río Badillo", by the composer Octavio de Jesús Daza, expresses moments of love for a couple who swear to love each other with great passion.

The Coin Park is located in the square of the municipality of Patillal, to the north of the Guatapurí river, approximately 30 minutes from Valledupar, on the road that communicates with the department of La Guajira, eight (8) composers are paid homage (glyptotheque) natives (Rafael Escalona, Freddy Molina, Octavio Daza Daza, Tobías Enrique Pumarejo, José Hernández, José María "Chema" Guerra, Jose Alfonso "El Chiche" Maestre, and Julio García) who through verse and prose show the sight of nature, the coastal culture, and the beauty of the women of the region, forging this place as the epicenter or cradle of composers par excellence in the department of Cesar. The El Helado Park and the Glorieta de Los Juglares unveiled on May 26, 2017, in the vicinity of the Hurtado spa, near the Guatapurí river, where the chair (or bench in metallic structure) of Diomedes Díaz and the bronze sculpture of Martín Elías Díaz Acosta are located (Figure 10c), works by the artists Jhon Peñaloza and Misael Martínez, respectively. This site was born as a new tourist attraction for Valledupar, but also as a tribute to Diomedes Díaz and his son Martín Elías who died, whose sculpture is standing, in a gesture of greeting and pleasure to his followers who when visiting it will provide the opportunity to have a photographic keepsake. Likewise, monuments to composers, accordionists (or accordion players) and singers (and interpreters) who have contributed to the forging of vallenato folklore, highlighting: the golden triplet of folklore consisting of Diomedes Díaz known as "El Cacique de La Junta", Jorge Oñate known as "The Goldfinch of America", "The Nightingale of Cesar" or "The Legend", and Alfonso "Poncho" Zuleta known as "The Golden Lung" (Figure 10d), as well as other artists like Iván Villazón (Figure 10e), Carlos Vives (Figure 10f),

Emiliano Zuleta (Figure 10g), Rafael Escalona (Figure 10h), Lorenso Morales (Figure 10i), Leandro Díaz (Figure 10J), and Kaleth Morales (Figure 10k), and an old DC-6 (Figure 10l) seized during the boom of the marimbera bonanza in Cesar in the 1980s, which has taken on new life and has become one of the attractions of this park located in the Hurtado spa, near the Guatapurí river, in Valledupar (Suarez 2018).

Figure 10. Monuments that represent the history of Valledupar.
Photography by Dino Carmelo Manco Jaraba, Carlos Alberto Ríos-Reyes and Oscar Mauricio Castellanos-Alarcón, november 2020.

In the same way, in the main avenues and areas of the municipality of Valledupar (Cesar), there are different monuments that praise the cultural, environmental and historical wealth that the Cacique Upar Valley represents, highlighting: The María Mulata monument (Figure 11a), is a sculpture inaugurated in 2000 to celebrate the 450th anniversary of the founding of Valledupar, which represents the fauna of Colombia: its great natural wealth, the work of the artist Enrique Grau.

The Obelisk (Figura 11b) is a 30-meter high cement sculpture located at one of the entrances to Valledupar since 1994, more precisely on the road that comes from Barranquilla (Atlántico) and Fundación (Magdalena), it is a tribute to life.

Figure 11c shows the Statue of Cacique Upar, the highest chief of the Chimilas, a tribe of the region, which is located near the transportation terminal of the city of Valledupar, on the road that reaches the municipality of La Paz.

The sculpture Hernando de Santana (Figure 11d), represents a tribute to the founder of the city in 1550, that Spanish conqueror is represented in a work built in recycled material, it is located on Avenida Salguero.

Figure 11e illustrates the tribute work to vallenato folklore in which the three members of a typical Vallenato music ensemble are observed: accordion player, cashier and guacharaquero. This work, located at diagonal 23 with Avenida Simón Bolívar, was made by the Vallenato sculptor Jorge Maestre in honor of the Vallenato culture. In the same way, Mi Pedazo de Acordeon (Figure 11f), is a work located in the north of Valledupar by the sculptor Gabriel Beltrán, in honor of the minstrel and first vallenato king, Alejandro Durán, who also became a symbol of all the accordion players of the region. In the vicinity of the Covered Coliseum, built in the late 1990s and being one of the few that has a movable roof, is the sculpture of Los Poporos (Figure 11g), which pays homage to the three indigenous ethnic groups (Arhuacos, Koguis, and Arzarios) that still inhabit the Sierra Nevada de Santa Marta. The sculpture of the Pilonera Mayor (Fiure 11h), by the sculptor Amilkar Ariza, is a tribute to the founder of the Vallenato Festival, Consuelo Araujo Noguera "La Cacica", located in the roundabout in front of the Vallenata Legend Park. At the Santo Ecce Homo viewpoint, located in the highest part of Las Antenas hill and is part of the Sierra Nevada de Santa Marta forest reserve, a statue of Santo Ecce Homo is erected (Figure 11i), that measures 35 m in height and was designed by the Colombian master Héctor Lombana. The sculpture by Leandro Díaz (Figure 11j) is a tribute to the musical contribution to folklore of more than 350 songs by this

Colombian composer. This sculpture is located in the recognized sector of the 'DPA' in Valledupar, it was made by the artists Jhon Peñaloza and Misael Martínez with a large-scale bust-type folkloric concept, which is 2.40 m from the top of the face to the neck, 1.80 m wide and 0.90 m of average depth (Suarez 2018).

Figure 11. Monuments and roundabouts of Valledupar.
Photography by Manco Jaraba, Ríos-Reyes and Castellanos-Alarcón, March 2018.

Valorization of the Geosites for Geotourism Development

Geotourism is defined as tourism that sustains or enhances the distinctive geographic character of a place, its environment, heritage, aesthetics, culture, and the well-being of its residents. Geotourism has emerged as a strategy for the sustainable development of a region based on the dissemination of its geological heritage from its use as a resource thanks to its scientific, educational, and aesthetic interest, generating social and economic benefits, including the generation income, employment opportunities for local communities, social inclusion, and infrastructure development. It integrates the principles of sustainability, responsibility and quality in the tourism sector, through actions in favor of the conservation of the environment, the promotion of culture and the activation of the socio-economic situation of the region.

Between a spectacular valley framed by the Sierra Nevada de Santa Marta and the Serranía del Perijá, in northeastern Colombia, is Valledupar, on the banks of the Guatapurí River, one of the main musical centers of the country for being the cradle of vallenato, genre most popular musical in the country, that was declared by the (unesco 2013) as Intangible Heritage of Humanity in its tenth session of the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage held in Namibia. Vallenato attracts numerous national and international tourists each year who come to enjoy the Vallenata Legend Festival since 1968, in which events as the coronation of the vallenato king and the traditional "piquerías" or duels of verses between the participants.

The Government of Cesar (Gobernación del Cesar 2010), through its tourism sector plan, has promoted the generation of information from the perspective of local communities, including cultural managers, artisans, musicians, painters, and visual artists. To strengthen the tourist chain in Valledupar, the United Nations Development Program (UNDP), in alliance with the Ministry of Labor of Colombia, seeks to train the sectors of this line that have weaknesses to boost Valledupar as a destination of national and international interest.

The region has based its economy on the agricultural sector that is currently in crisis, which has generated high unemployment rates, a very high informality, and a difficult situation of income generation, among others. In this way, the municipal administration of Valledupar must implement strategies for agricultural development,

entrepreneurship and job creation. However, local communities could also adapt to the needs that the tourist offer of this region requires, taking advantage of the many tourists who are arriving there thanks to its natural and cultural wealth. Therefore, local communities, in addition to agricultural activity, could get involved in tourism by providing accommodation, typical food, and hospitality to tourists. The National Tourism Fund (FONTUR) has also been promoting activities with the aim of designing, elaborating and consolidating the tourist products necessary to promote Valledupar, with the support of Travel Agencies and tour operators. Artesanías de Colombia has been managing this city to consolidate all artisans so that they can have more access to the institutional offers offered by this agency of the national government.

Thanks to the numerous geosites, among which the outcrops of the Guatapurí, Cesar, Seco, Badillo, Candela, El Mojao, La Mina, and El Ponton rivers stand out, the hotel, cultural and historical sector of Valledupar, the hills of HAKU, Murillo, Las Antenas, La Popa, Las Cabras and La Paz, the Ecopark Los Besotes, the Natural Reserve of the Los Tananeos Civil Society, the Abanico de Valledupar Aquifer, and karstic ecosystems have great potential for the development of geotourism thanks to its aesthetic, scientific or tourist values. The valuation of geosites of interest for geotourism development is carried out based on their accessibility, state of conservation, scientific value and educational value (Annexed 1). These geosites are of tourist interest and have aesthetic, scientific and educational values for the transfer of geoscientific knowledge about different geological processes. Other valuable elements of these geosites include whitewater waterfalls and stone pools for swimming or fishing, escarpments attractive to climbers and cave explorers with important geomorphological and hydrological values, and ecological trails through areas of natural reserve for the enjoyment of tourists.

Conclusions

The present work is the result of a research carried out over several years and aims to promote the importance of preserving the natural and cultural heritage of the native region of Valledupar (Colombia), allowing to identify sites of geological interest (geosites), that not only have a scientific and educational value but also an attractive landscape of a singular beauty, being of great importance as georecourses with potential for the development of geotourism. Therefore, it is essential to promote geoducation that contributes to the development of activities for geoscientific knowledge in tourists and to value geological heritage as an important part of the natural and cultural heritage of this region, for its management by a responsible society and respectful with the environment, that promotes its conservation, preservation, protection, and benefits. For this reason, it is necessary to establish agreements or strategic alliances between local communities, public and private organizations of basic, secondary and higher education, restaurants, tourist companies, etc., that allow the construction of plans focused on the preservation and management of their heritage. Geotourism is a relatively new term in Colombia that is based on the strengthening of the identity of a territory as a strategy for the sustainable and sustainable development of a region thanks to its scientific, educational, aesthetic, social, cultural, environmental interest, history, and well-being for native communities and visitors.

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Table 1. Possible geosites in the Cacique Upar Valley (Colombia) and its surroundings

Code	Geosite	Typology	Heritage category	Heritage subcategory	Value criteria	Elements	Location	Main characteristics
GEO- 1	Río Badillo	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Badillo	From the river bridge you can see the fluvial dynamics of this important tributary of the Cesar River, erosion at the edges, morphological changes in the terrace levels. It is recognized for being a source of inspiration for composers, writers, poets and painters.
GEO- 2	Río Candela	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Patillal	It is one of the most sought-after spas by natives and visitors due to its water wealth, highlighting its crystalline waters, igneous petrology, geomorphological, landscape and fauna.
GEO- 3	Río La Mina	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	La Mina	In the riverbed of this water source we can see small pools adorned by crystalline rocks, geoforms of fluvial origin, highlighting giant kettles, basins among others.
GEO- 4	Río el Pontón	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Atánquez	Recognized for its waterfalls, crystal clear waters, fauna and flora diversity, as well as a petrological wealth of igneous rocks.
GEO- 5	Capilla Doctrinera de San Antonio de Padua	Punto	Cultural	Tangible	Cultural, Historical	Religious, Architectural, Social collections	Badillo	Spanish colonial Catholic temple considered as national heritage of Colombia, as "Assets of Cultural Interest, Architectonic Heritage".
GEO- 6	Cerro de las Cabras	View point	Natural	Geological, Biological	Aesthetic, Scientific, Tourist	Geomorphology, Erosion and sedimentation, Biodiversity	Patillal	Panoramic view of the municipality of Patillal.
GEO- 7	Ecoparque Los Besotes	Area	Natural	Geological, Biological	Ecological, Educational	Biodiversity	Patillal	Eco natural park with a variety of rocks (igneous, sedimentary and metamorphic), flora, fauna and water sources.
GEO- 8	Cerro Murillo	View point	Natural	Geological, Biological	Aesthetic, Scientific, Tourist	Geomorphology, Erosion and sedimentation, Biodiversity	Patillal	Panoramic view of the Los Besotes Ecopark.

GEO- 9	Río Seco	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Río Seco	Characteristic for presenting low water levels in the different seasons of the year and a variety of metamorphic rocks, Triassic - Jurassic igneous rocks from different geological environments, and Quaternary deposits.
GEO-10	Río Cesar	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Departamento del Cesar	Main source of water in the department of Cesar, it is born in the SNSM and flows into the Cienaga de Zapatosa (Momposina depression area); Karstification processes, Quaternary deposits and igneous rocks can be seen throughout its course.
GEO-11	Río Guatapurí	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Valledupar	The quintessential spa for the vallenatos and visitors due to its richness and water quality; it is also considered a natural laboratory of igneous rocks.
GEO-12	Cerro de HAKU	View point	Natural	Geological, Biological	Aesthetic, Scientific, Tourist	Geomorphology, Erosion and sedimentation, Biodiversity	Valledupar	Panoramic view of Valledupar.
GEO-13	Cerro de Las Antenas	View point	Natural	Geological, Biological	Aesthetic, Scientific, Tourist	Geomorphology, Erosion and sedimentation, Biodiversity	Valledupar	Panoramic view of Valledupar.
GEO-14	Cerro La Popa	View point	Natural	Geological, Biological	Religious, Social, Touristic	Geomorphology, Erosion and sedimentation, Biodiversity	Valledupar	Panoramic view of Valledupar.
GEO-15	Río Mocho	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	La Paz	Presents Fluvial Dynamics, lateral edge erosion, morphological changes in the terrace levels.
GEO-16	Río Manaure	Area	Natural	Geological, Biological	Scientific, Educational	Geomorphology, Erosion and sedimentation, Biodiversity	Manaure	The main source of water in the Manaurero municipality, it is born in Cerro Pintado (Colombo-Venezuelan border) and flows into the Cesar River.
GEO-17	Cerro La Paz	View point	Natural	Geological, Biological	Aesthetic, Scientific, Tourist	Geomorphology, Erosion and sedimentation, Biodiversity	La Paz	Panoramic view of La Paz. Made up of limestone belonging to the Cogollo Group.

GEO-18	Cueva Coco Loco	Area	Natural	Geological, Biological	Ecological, Economic, Tourist, Educational, Scientific, Cultural and Historical	Geomorphology, Karstification, Espeleology	Manaure	Underground ecosystem with a geomorphological (endocarstic, exocarstic) and biological richness belonging to the Cogollo Group.
GEO-19	Caverna Sabana de León	Area	Natural	Geological, Biological	Ecological, Economic, Tourist, Educational, Scientific, Cultural and Historical	Geomorphology, Karstification, Espeleology	Manaure	Underground ecosystem with a geomorphological (endocarstic, exocarstic) and biological richness belonging to the Cogollo Group.
GEO-20	Museo del Acordeón	Point	Cultural	Tangible	Historical, Scientific, Educational, Touristic	Museography, Archaeology	Valledupar	It comprises an important collection of accordions.
GEO-21	Patrimonio cultural e histórico	Area	Cultural	Tangible	Cultural, Historical, Educational	Hispanic architecture	Valledupar	Colonial architecture, roundabouts, monuments and cobbled streets that represent a testimony of history and historical landmarks in Vallenato folklore.
GEO-22	Explotación de material pétreo	point	Natural	Geological, Biological	Economic, Educational	Mining, Sedimentology, Economic geology	Valledupar	Exploitation of rock aggregates.
GEO-23	Reserva los Tananeos	Area	Natural	Geological, Biological	Ecological, Educational	Biodiversity	Manaure	Natural park with a great variety of flora and fauna species, and various water sources that bathe it.
GEO-24	Cueva de Los Siete Caballeros	Area	Natural	Geological, Biological	Ecological, Economic, Tourist, Educational, Scientific, Cultural and Historical	Geomorphology, Karstification, Espeleology	Manaure	Underground cavity belonging to the Cogollo Group, with endocarstic and exocarstic biological and geomorphological richness belonging to the Cogollo Group; Currently, it has a great historical interest because it was a refuge for Luis Vargas Tejada, his servant and six of his companions, after the conspiracy against General Bolívar, on the night of September 27, 1828.
GEO-25	Iglesia de La Inmaculada Concepción	Punto	Cultural	Tangible	Cultural, Historical	Religious, Architectural, Social collections	Valledupar	Underground cavity belonging to the Cogollo Group, with endocarstic and exocarstic biological and geomorphological richness belonging to the Cogollo Group; Currently, it has a great historical interest because it was a refuge for Luis Vargas Tejada, his servant and six of his companions, after the conspiracy against General Bolívar, on the night of September 27, 1828.

GEO-26	Rocas sedimentarias del Grupo Cogollo	Point	Natural	Geological, Biological	Scientific, Educational	Sedimentary petrology, Sedimentology, Stratigraphy	La Paz, Manaure	Sedimentary sequence of the Cogollo Group.
GEO-27	Patrimonio cultural e histórico	Area	Cultural	Tangible	Cultural, Historical, Educational	Hispanic architecture	Patillal	Colonial architecture and monuments that praise and reconstruct the history of Vallenato.
GEO-28	Festival Vallenato	Area	Cultural	Intangible	Cultural, Tourist	Art	Valledupar	Representative festival of the vallenatos, where accordion contests, unpublished songs, piquería in different categories are held. Likewise, competitions for piloneras and caravan of Willy-type cars.
GEO-29	Festival del Dulce	Area	Cultural	Intangible	Cultural, Tourist	Art	Valledupar	Festivity where the different types of sweets of the region are exposed and sold.
GEO-30	Carboniferous Zone	point	Natural	Geological, Biological	Economic, Educational	Sedimentary petrology, Sedimentology, Stratigraphy	Becerril, La Jagua de Ibirico, El Paso, Codazzi, Chiriguana	Exploitation of coal.
GEO-31	Cultural and historical heritage	Área	Cultural	Tangible	Cultural, Historical, Educative	Hispanic architecture	Pueblo Bello	It is the only municipality located in the Sierra Nevada de Santa Marta, a forest reserve area, an indigenous reserve and a natural park. Arahuacan crafts are one of the attractions, highlighting the backpack.
GEO-32	Sierra Nevada de Santa Marta	Área	Natural	Geological, Biological	Scientific, Educational, Cultural, Historical	Geomorphology, Structural geology, Petrology	Southeastern limits of this large solitary massif with a triangular base	The SNSM is a natural and incomparable beauty and one of the most outstanding and coveted sites by natives and visitors, due to its mega diversity and its impetuous mountains, being the highest in the world on the seashore (Bolívar and Colon de 5,700 masl)
GEO-33	Coffee Festival	Area	Cultural	Intangible	Cultural, Tourist	Art	Pueblo Bello	The Coffee Festival takes place here, knowing that it is the first coffee producer on the Atlantic Coast.