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ONE SHORE, MULTIPLE SCENERIES: CHALLENGES FOR ASSESSMENT AND USE OF COASTAL GEOHERITAGE IN THE STATE OF SÃO PAULO, BRAZIL

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The coastal region of São Paulo State, Southeastern Brazil, has been the focus of geoheritage inventories since 2012. By means of local, town-based inventory work, about a hundred sites have been already selected and intend to compound a list to be the basis of a future geodiversity ecosystem services plan. The current physical configuration of the region is a result of geological, geomorphological and climate processes acting since Archaean and Proterozoic, going through the opening of South Atlantic Ocean – along with an NE-SW line controlled by ancient structures - and variations of sea level. All these processes acting heterogeneously caused strong differences in the morphodynamic nature along the whole coastal zone, strongly controlling the assessment and management of geoheritage.

According to its physical characteristics the region may be divided into distinct segments. The Northern section is characterised by a highly indented coastline, with restricted drainage basins and small bays and beaches separated by rocky promontories, as well as numerous islands. The Serra do Mar slopes are close to the coastline. Most of the geosites are representative of Precambrian events related to the amalgamation of Gondwana Supercontinent, as well as to its breakup, at Cretaceous. At the Central portion (the so-called Baixada Santista) a tectonic-related estuary complex, with tidal channels and mangroves greatly controlled human occupation and land use occur. Local history is strongly related to the colonisation of the country in the XVI century and there stands Brazilian's first village, São Vicente. Being the closest to the capital city, most of the natural heritage has been destroyed, part of which can be seen in several historical monuments and buildings. On the Southern coast, mainly dissipative, long beaches predominate, and the coastal plains are large as a result of tens of kilometers from the Serra do Mar to the coastline. A large estuarine-lagoon system associated with the largest watershed on the coast, the Ribeira do Iguape River, are main local features. Active erosion processes are frequently enhanced by human activities, what makes the sites extremely vulnerable, and fragile. Many of the selected geosites are representative of coastal active dynamics.

Besides geodiversity values, the coast of São Paulo comprises a number of conservation units, including two UNESCO's Biosphere Reserves related to the Atlantic Forest. It is also home to important traditional communities, such as fishermen (the Caiçaras), remnants of African slaves settlements (the Quilombolas), and indigenous people (mainly Guarani and Mbya-Guarani ethnic groups), which hold outstanding intangible cultural heritages. Strong relationships between built heritage and geodiversity are extensively found in stone materials used in constructions and monuments, since these materials comes mostly from local lithotypes.

As the most populated and industrialised state of Brazil, São Paulo's coast is the focus of extreme property speculation and a tourism industry that lacks environmental concerns. Adequate evaluation of geoheritage leading to future inclusion in territorial management programs may be the key to sustainable use of its abiotic natural heritage.