
**Rio de Janeiro
(Brazil)
No 1100rev**

Official name as proposed by the State Party

Rio de Janeiro, Carioca Landscapes between the Mountain and the Sea

Location

Rio de Janeiro City and State
Rio de Janeiro Metropolitan Area
Brazil

Brief description

The city of Rio de Janeiro, shaped by interaction with mountains and sea in the narrow strip of alluvial plain between Guanabara Bay and the Atlantic Ocean, has developed into an exceptionally dramatic landscape that is perceived to be of great beauty by artists, architects and writers.

The serial nomination encompasses all the key natural, structural elements that have constrained and inspired the development of the city. These stretch from the highest points of the mountains of the Tijuca National Park, down to the sea, and include the Botanical Gardens, Corcovado mountain, with its statue of Christ, and the chain of dramatic step green hills such as Sugar Loaf around Guanabara Bay, as well as the extensive designed landscapes on reclaimed land along Copacabana Bay which, together with Flamengo and other parks, have contributed to the outdoor living culture of the city.

The boundary includes all the best view points to appreciate the way nature has been shaped to become a significant cultural part of the city.

Category of property

In terms of the categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of 4 sites.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (January 2008) paragraph 47, it is nominated as a *cultural landscape*.

1 Basic data

Included in the Tentative List

7 August 2001

International Assistance from the World Heritage Fund for preparing the Nomination

None

Date received by the World Heritage Centre

29 February 2002

27 January 2011

Background

This is a deferred nomination (27 COM, Paris, UNESCO Headquarters, 2003).

The World Heritage Committee adopted the following decision (Decision 27 COM 8C.12):

The World Heritage Committee,

1. *Decides not to inscribe Rio de Janeiro: Sugar Loaf, Tijuca Forest and the Botanical Gardens, Brazil, on the World Heritage List on the basis of natural criteria;*

2. *Defers consideration of the cultural criteria of Rio de Janeiro: Sugar Loaf, Tijuca Forest and the Botanical Gardens, Brazil, encouraging the State Party to:*

(a) undertake an appraisal of the cultural values of Rio's setting in order to inform a re-definition of the boundaries of the proposed World Heritage property, so as to protect the overall back-drop of the city more effectively, and

(b) put in place an integrated management plan, including revisions to the legislative protection and boundaries of the proposed property, as recommended by IUCN and ICOMOS;

3. *Further encourages the State Party to re-nominate the property as a cultural landscape, subject to the caveats outlined above.*

The first nomination was for a mixed property while the revised nomination is for a cultural landscape, as encouraged by the World Heritage Committee.

The name of the property has been changed from 'Rio de Janeiro: Sugar Loaf, Tijuca Forest and the Botanical Garden' to 'Rio de Janeiro, Carioca Landscapes between the Mountain and the Sea' in order to reflect the inclusion of urban areas bordering the sea and the idea of an overall cultural landscape.

Consultations

ICOMOS has consulted its International Scientific Committees on Cultural Landscapes and Historic Towns and Villages and several independent experts.

Technical Evaluation Mission

For the first nomination a joint ICOMOS/IUCN technical evaluation mission visited the property in September 2002. For the revised nomination, an ICOMOS technical evaluation mission visited the property from 4 to 8 October 2011.

Additional information requested and received from the State Party

On 26 September 2011 ICOMOS wrote to the State to request further information on how the requirement for an

over-arching management system for the four sites that make up the serial nomination will might be met and the time-frame for its implementation. The State Party responded on 24 October 2011.

On 6 December 2011, ICOMOS wrote to the State Party to request further information on the following:

- When the Steering Committee for the property will be inaugurated, what its responsibilities will be and when its Executive and Technical sub-committees will be established and start functioning;
- When work will commence on the drafting of the Management Plan and what it will be managing in relation to attributes of proposed Outstanding Universal Value, views, sustainable development and the buffer zone and how it will address threats such as antennae, water pollution and illegal settlements;
- The 'Vision' for the Management plan and how it will be approved and implemented within the existing legislative and planning system;
- Documentation of the attributes of Outstanding Universal Value;
- Details of Areas of Cultural and Environmental Protection (APAAC) created in 2009 and how these relate to the nominated sites;
- Complementary Law no 111 of February 2011 and how it relates to the nominated sites;
- The possibility of minor extensions to the property boundaries to encompass areas visually linked to the nominated sites;
- How the Buffer Zone will provide additional protection and what constraints apply to the designated buffer zone and how these constraints are or will be managed and the possibility of enlarging it in two places;
- Details and a timetable for conservation work;
- How the threat of housing development near the Botanical Garden will be addressed.

On 2nd March 2012, the State Party responded to this request and details of its response are included in this evaluation report.

Date of ICOMOS approval of this report

14 March 2012

2 The property

Description

Rio de Janeiro is punctuated by a series of forested mountains that tower over the city, rising to the uppermost peak of the Tijuca massif at 1,021 m high, and cascading down to the coast where the steep cone shapes of Sugar Loaf [*Pão de Açúcar*], Urca, Cara de Cão and Corcovado frame the wide sweeps of Guanabara Bay that shelters Rio from the Atlantic Ocean.

Cradled between these mountains and Guanabara Bay, the urban landscape of the city has been shaped by significant historical events, influenced by a diversity of cultures, is perceived to be of great beauty, and is celebrated in the arts, through painting and poetry in particular.

The first nomination in 2002 included the mountains of the Tijuca National Park (within which is the Statue of Christ the Redeemer on Corcovado mountain, and the Botanical Garden on the lower slopes of Mount Tijuca) and three headlands around Guanabara Bay, including *Pão de Açúcar* (Sugar Loaf).

The present nomination dossier includes these same 'green' structural elements of the city, the mountains covered with lush vegetation, and the peaks of Sugar Loaf, Pico, Leme and the Glória hills. The new sites that have been included are Flamengo Park, Copacabana beach promenade and various other open spaces on the coast associated with the landscape architect Burle Marx, as well as the Guanabara Bay system of historic fortifications that gave Rio de Janeiro the character of a fortified city.

The nominated sites stretch from the southern area of the city to the western tip of Niterói across Guanabara Bay.

The city's densest buildings sit on the narrow strips of alluvial land between the mountains and the sea laid out in irregular clusters of tall white blocks which contrast vividly with the green vegetation of the mountains and the blue of the sea. None of these buildings are included in the nominated area, but a significant number are included in the buffer zone.

In detail the nominated property consists of the following component sites:

- Tijuca National Park
- Botanic Garden
- Flamengo Park
- The mouth of the Guanabara Bay
- Copacabana Beach Front

These are considered separately:

Tijuca National Park

The Tijuca National Park is around the Tijuca and Carioca mountain ranges. The three physically separate areas of the National Park are essentially mountainous, afforested and uninhabited.

The Park contains historical elements representing the early history of coffee and sugar plantations on land carved out of the forest. It also includes a significant section of the Atlantic Forest, some of which was re-afforested through innovative restoration efforts in the mid-19th century – see History section. The Park is now considered to be one of the world's most successful

examples of the re-forestation of an urban park that combines ecological and recreational needs.

The southern part of the Forest of Tijuca is littered with both natural and artificial features – for example, waterfalls, caves and lookouts on the one hand, grottoes, ruins and fountains on the other – the whole accessible by carefully contrived roads and paths. It shares characteristics of Romantic parks and gardens elsewhere, and was influenced by European ideas.

The Serra da Carioca and the Floresta da Gávea Pequena are, in contrast, essentially wild (though the vegetation is generally not indigenous).

The Carioca mountain range includes the Corcovado Peak which was opened to the public in 1885 with the inauguration of the Corcovado railway. In 1931, the monumental statue of Christ the Redeemer was installed on its peak. The 704 metres high art deco statue was designed by the architect Heitor da Costa e Silva under the supervision of the French artist Paul Landowsky.

Botanic Garden

The Botanical Garden was established on the lower slopes of the Tijuca Massif in 1808. It consists of a forest reserve (83 ha) and a formal garden. Fifty-three hectares of its overall 137 hectares of forest reserve, are open to the public, the remainder being used as a centre for an on-going research programme on the Atlantic forest.

The garden includes an arboretum, with a large collection of Amazonian trees, internationally significant collections of several plant families, particularly palms. a national herbarium, and a research library. Unlike in European botanical gardens, the warm climate of Rio allowed the collections of plants from around the world to be grown outdoors rather than in glazed hot houses.

The design of the garden is neo-classical with straight avenues, some framed by immensely tall palm trees, a landmark of the gardens.

Flamengo Park

Flamengo Park was created between 1961 and 1965 by razing to the ground the hill of Santo Antonio. The Park provides an extensive open space (1.2 million sq metres) between the City and Guanabara Bay. Its creation is credited to Maria Carlota Macedo Soares. A large team of specialist architects, engineers and botanists worked on the Park including the landscape architect Burle Marx, who was in charge of landscape design. The Park was extensively planted with over eleven thousand trees. The design incorporated an expressway, the existing Santos Dumont airport (1944), the Museum of Modern Art (1956) and the monument to the soldiers who died in World War II (1956).

The mouth of the Guanabara Bay

This area includes prominent tall rocky formations to each side of the bay. Sugar Loaf, Cara de Cão, Urca and Babilônia hills on the western shore (Rio de Janeiro) and Pico hill on the eastern shore (Niterói) (across the Bay), all of which were initially employed for defensive purposes. There is a group of Portuguese forts on Niterói.

Copacabana Beach Front

The occupation of the Copacabana area of Guanabara Bay as a seaside resort began with the construction of the Prefeito Alair Prata Tunnel (*Túnel Velho*) in the late 19th century. The current coastline is the result of land reclamation in the 1970s, when the road around the bay was doubled in width, the pavement broadened and the beach widened.

The layout of the Copacabana beachfront, and its distinctive mosaic paving, was designed by Burle Marx. His work at Flamengo Park and then at Copacabana were considered very innovatory for their time and became model landscaping solutions that were copied elsewhere.

What is nominated is around 4.5km of the flat promenade and road but not the buildings that fringe the bay, above which can be seen the green hills.

Buffer Zone

The extensive buffer zone covers the densely populated, built-up area between the sea and the mountains. It encompasses hills which rise above Copacabana, the green areas bordering Flamengo Park, Rodrigo de Freitas Lagoon and the Jardim Botânico district, bordering the Tijuca National Park and the Botanical Gardens, and the district of Urca which borders of Sugar Loaf peak.

History and development

The history of the overall Rio urban landscape is a history of the way the landscape has been used and shaped to become a cultural part of the city and how the city in turn has been shaped by the landscape of mountains and sea.

The first European settlement, Rio, was founded at the foot of Sugar Loaf in 1565. The second was on Castelo Hill, whence the city spread west along the coast and then north and northwest inland. Its expansion and shape were strongly influenced by the way the newly acquired land was allotted in grants around the Tijuca massif. This last was itself practically untouched into the middle of the 17th century but areas on it were thereafter cleared for sugar plantations.

Water supply to the growing city became a major problem in the 18th century: the Carioca River was canalised from 1720, carrying water into the city centre eventually via the Carioca viaduct (1750, now disused).

Coffee cultivation and water supply on the Tijuca came into conflict following the arrival of the Portuguese Royal Family and Court (20,000 persons) in 1808: the demand for both increased enormously. Yet in the same year an 'acclimatization garden' was created to help the establishment of exotica in what was the beginning of the Botanical Gardens.

The early 19th century saw a big increase in contact with Europe and other parts of the world as diplomatic, scientific and artistic missions arrived in Rio. The Tijuca massif became fashionable for its 'Alpine' climate; it became popular to climb Sugar Loaf. Water supply remained the crucial question, however, a serious drought in 1843 led to governmental expropriation of the mountain springs and a change in policy to revive the forest. 90,000 trees were planted between 1861 and 1874, and thereafter landscaping was added to re-forestation. Glaziou, fresh from working on the Bois de Boulogne, Paris, tackled Tijuca; and the Corcovado railway was inaugurated.

Between 1889 and 1961, the Tijuca Mountains were semi-abandoned and, as the city below was regulated and modernized, it came to rely less on Tijuca for its water. As it expanded still further, recreational fashion changed and people began to flock to the city's beaches rather than to its mountains and forests.

Forest restoration began again in the 1940s, but by then the relationship between the city and the montane forest now in its middle demanded more profound attention. In the words of the nomination, the dilemma between *'the forest that wants to grow and the city that also wants to grow'* needed to be resolved.

The Tijuca National Park was created in 1961, *'a zone above the 100-meter mark.'* Ten years later the Forest Garden in Gávea (Sector B) was merged with the Botanical Garden. The Forest Reserve now contains 83 ha of reconstituted parts of the remnants of the Atlantic Forest. Though under great pressure for habitation as the city has expanded, the National Park is virtually uninhabited: 36 dwellings contain 156 persons, mostly employees.

The Botanical Garden flourished after its founding in 1808. It is now one of the oldest and most renowned botanical gardens in the new world, and throughout its history has remained closely linked to the Tijuca National Park. In addition *'to supplying the shoots for replanting Tijuca, the Botanical Garden, as a public garden and scientific institution, was to be an area that [legitimised] the forest as a laboratory for forestry and botany...'* For nearly 200 years the Botanical Garden has served as one of the most important institutions studying and conserving Brazilian flora, through its living collections, herbarium, and library.

Since 1995, the arboretum has been revitalized, a National School of Tropical Botany created, a new herbarium building constructed, according to

international technical standards, to shelter properly the institution collection, and an impressive education program initiated. The herbarium includes a large number of specimens from the national Brazilian flora as well as representative species of various countries from the European, Asian, African, and American continents. *'The Herbarium keeps both national and international interchange with similar institutions ... and owns important collections of nomenclature types, photographs and preserved fruit collections.'*

The Atlantic Forest Program was created in 1989 with its basic mission to further knowledge about the plant communities of the Atlantic Forest remnant, by carrying out academic and applied research. In 1998, the name of the Botanical Garden, as part of the Ministry of the Environment, was changed to Rio de Janeiro Botanical Garden Research Institute. In 2001, the Rio de Janeiro Botanical Garden Research Institute became an autonomous institute linked to the Ministry of the Environment

The areas adjacent to the bay and the ocean were largely constructed on reclaimed land. The first constructions were two forts at the foot of Pico and Sugar Loaf hills. Later other forts were added at Rio Branco and Imbuí.

In 1783, *Passeio Público* was created near the bay, the first park in Brazil designed by Mestre Valentim. It was remodelled in 1862 by the landscape artist Auguste Glaziou, in the English style. (This park is in the buffer zone.)

In the 20th century land reclamation intensified. Open areas were developed along and near the new man-made shore to provide better circulation spaces and parks for leisure – notably the Copacabana beach area and its nearby parks.

3 Outstanding Universal Value, integrity and authenticity

Comparative analysis

The nomination dossier compares the key attributes of Rio – an urban landscape with a forest at its centre, underpinned by dramatic hills and framed by sea - with other major cities interfacing with the sea – both those inscribed on the World Heritage List and others. It also provides comparisons between the Botanical Garden and other botanical gardens. The canvas within which the comparators are sought is global.

The analysis sets out mainly to find similarities with the chosen comparators rather than differences. It also has not been structured to address first inscribed sites, and then to consider others.

The analysis sets out similarities that can be perceived with cities such as Cape Town and Naples, in terms of their overall landscape of urban buildings, mountains

and sea as a reflection of the way human societies have overcome the challenges inherent to settlement and adaptation of the environment. It outlines these similarities and also difference arising from the existence of tropical forests in the heart of the city of Rio.

Hong Kong, San Francisco and Buenos Aires are also considered as examples of bay settlements. Hong Kong has parks on its hilltops, but the views are obscured by the skyscrapers around them. For the other two cities the difference is seen to be the way that they developed in fairly regular patterns along a relatively smooth shoreline.

The analysis also considers certain specific elements of the landscape. For instance Rio de Janeiro and New York are seen to have certain similarities related to two of their parks: Flamengo Park and Riverside Park. However the latter is not seen to have the distinctiveness of Flamengo Park.

The Tijuca forest is also compared to the Forest of Sintra, Portugal, as both were re-afforested in the 19th century.

Further comparisons are made between the Botanic Garden and others around the world such as Padua and Kew, both World Heritage properties. What is seen to set the Botanic Garden at Rio apart is its size – being larger than the other two - and the way its plant collections are grown in the open air.

What the comparative analysis does not provide are any overall formal conclusions as to whether there are similar sites already inscribed, or whether there are other sites that are similar that might be considered for nomination in the future.

Also justification is provided for the choice of components in the serial nomination.

ICOMOS considers that although Rio de Janeiro contains elements similar to those found in other urban contexts, it is as a whole ensemble of forested mountains, parts of the city and sea that the site is extraordinarily distinctive, in the way the conjunction of those three elements has come to be seen as a landscape of great beauty, widely acknowledged around the world, and for the way the natural landscapes has been modified and given cultural meaning. There are no other landscapes in urban areas already inscribed that can be said to display the combination of value and attributes that Rio manifests.

Furthermore ICOMOS does not consider that there are other landscapes that might be nominated in the future that could be said to be similar to Rio in terms of the articulation of nature and culture, and the strong sense of identity that this fusion has created.

In terms of the choice of the components of the series, ICOMOS considers these are adequate to convey the

green natural framework that has become interwoven with the city and to represent the open spaces – parks and the reclaimed shores that have provided space for outdoor living that has come to define the culture of the city. As set out below, it is considered that the boundaries of these component parts need some adjustment.

ICOMOS considers that comparative analysis can justify consideration of this property for the World Heritage List and that the selection of component sites is justified.

Justification of Outstanding Universal Value

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Rio is an exceptional example of a natural landscape that has developed over half a millennium from the interactions brought about by human settlements and the development of the city.
- Rio has given rise to an extraordinary set of urban public landscapes, composed of gardens, parks and protected natural landmarks whose natural scientific significance and cultural associations grant them unique value.
- The Botanical Garden presented a transformation of the landscape where the plant collections from around the world were grown in the open air.
- Scientific knowledge of the native plant life, allied to the Romantic ideals prevalent in the second half of the 19th century, and increased concerns about environmental preservation led to the reforestation of the Tijuca massif resulting in an urban forest of unique features. The man-made transformations of the landscape, the mountain and the seafront have made the city a point of reference the world over.
- The quality of the successive interventions to a site of such great beauty has earned the landscape heritage of Rio de Janeiro city international recognition.

ICOMOS considers that this justification is broadly appropriate although the Outstanding Universal Value does need to be related to a fusion of these attributes that together have come to be seen as a landscape of great beauty. ICOMOS considers that the serial approach of sites around the city that encapsulate the interaction with its natural framework is also appropriate.

Integrity and authenticity

Integrity

The nominated sites encompass all the key natural, structural elements that have constrained and inspired the development of the city of Rio, stretching from the highest points of the Tijuca mountains down to the sea, and including the chain of dramatic step green hills around the Guanabara Bay, as well as the extensive designed landscapes on reclaimed land around the Bay,

that have contributed to the outdoor living culture of the city.

ICOMOS considers that none of these elements is under threat, although the interface between these natural elements and the built-up city is vulnerable to urban pressures, the higher peaks are marred by a profusion of antennae and the Lake Rodrigo da Freitas Lake (in the buffer zone) and the sea are subject to a degree of water pollution.

Authenticity

The mountains and open green areas of the Tijuca National Park, together with Corcovado and the hills around the Guanabara Bay still retain a similar combination of forest and open observation points as at the time of colonisation and allow access to vistas of the city from many high vantage points that demonstrate very clearly the extraordinary fusion between culture and nature in the way the city has developed.

The Botanical Garden has retained its original neoclassical design with its special alignments and the fortresses keep alive the memory of the Portuguese settlements, engraved and described by the travellers that navigated the marine routes that focused on Rio de Janeiro.

The landscape designs of Burle Marx around almost the entire coast of Guanabara Bay, comprising Flamengo Park and the reconstruction of Copacabana beaches conserve entirely the landscape morphology of their original designs and still confer high social benefits to the city.

However, in some instances elements of the designed landscape are vulnerable to incremental change – such as the paving and planting along Copacabana, where missing trees and mosaics need replacing, and in the Botanical Garden where the Imperial Palms along the main avenue are dead and need replacing.

ICOMOS considers that the conditions of integrity and authenticity have been met although they are vulnerable to incremental changes.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (i), (ii) and (vi).

Criterion (i): represents a masterpiece of human creative genius;

This criterion is justified by the State Party on the grounds that the designed landscapes in the nominated areas are of high quality. These are the re-afforested Tijuca National Park with its formal landscaping associated with Romantic ideals and the landscape designs of Burle Marx in the Flamengo Park and around the Copacabana beach.

Whereas ICOMOS considers that Burle Marx had a profound impact on the development of landscape architecture in the 20th century, and the re-afforestation of Tijuca also had an impact in influencing approaches to the development and conservation of urban forests in the 19th century, the designed landscape of Tijuca is not outstanding if compared with other urban parks of the 19th century nor is the Botanical Garden exceptional in design terms. The landscape of Burle Marx in Rio and particularly the Copacabana beach are now considered important for what they contribute to the identity of Rio and the culture they have inspired and Flamengo Park provides on a massive scale a highly satisfactory fusion between urban structures and landscape.

The focus of the nomination goes beyond the design of individual components to encompass the grand landscape vistas of that part of the city of Rio that faces towards Guanabara Bay and the way the natural landscape has supported and constrained its development to produce an outstanding cultural landscape that works for the city. This creative fusion between culture and nature at a macro scale is better reflected in other criteria.

ICOMOS considers that this criterion has not been justified.

Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that what is being nominated is not the whole city but its major open spaces in the form of forests, botanical gardens, parks and beachfront that reflect the way the city has developed around its natural landmarks, between the high mountains of the Tijuca forest and the sea. This development has not been passive, but rather an active engagement with nature that reflect an array of influences from Europe and the way these have been adapted to create something new in the context of Rio.

The re-afforestation of the Tijuca hills combined European ideas of designs with environmental approaches that sustained the water resources of the city and led to the development of guiding principles for urban parks that were disseminated in various Brazilian and American cities. The Botanical Gardens supported the re-afforestation process through providing the necessary trees as well as being the focus of an interchange of scientific ideas with leading researchers of the 19th century.

ICOMOS considers that on the other hand, the works of Burle Marx were strongly based on a study of nature, particularly Brazilian botany and thus his ideas of landscape design were arguably a product of Brazil rather than being the result of an interchange of ideas

from elsewhere, although they did go on to influence landscape design elsewhere.

ICOMOS considers that the whole landscape of Rio is perceived to be an almost unique creation and valued as such rather than being seen to reflect a dominant interchange of ideas.

ICOMOS considers that this criterion has not been justified.

Criterion (v): be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion has not been proposed by the State Party.

ICOMOS considers that the development of the city of Rio has been shaped by a creative fusion between nature and culture. This interchange is not the result of persistent traditional processes but rather reflects an interchange based on scientific, environmental and design ideas that led to innovative landscape creations on a major scale in the heart of the city during little more than a century. These processes have created an urban landscape perceived to be of great beauty by many writers and travellers and one that has shaped the culture of the city.

ICOMOS considers that this criterion has been justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the State Party on the grounds that the landscape of Rio is unrivalled in terms of its beauty, and the quantity of images that have been generated by professional and amateur artists, Brazilian and foreign alike.

ICOMOS considers that the beauty of Rio has spawned countless reproductions of its landscape in many media since the early 19th century.

Its dramatic scenic quality has provided inspiration for many forms of art, literature, poetry, and music. It is undoubtedly the case that images of Rio, which show the bay, Sugar Loaf and the statue of Christ have had a high worldwide recognition factor, since the middle of the 19th century. Such high recognition factors can be either positive or negative: in the case of Rio, the image that was projected, and still is projected, is one of a staggeringly beautiful location for one of the world's biggest cities.

Such high recognition of the physical form of Rio's landscape setting must give it a certain universal value.

ICOMOS considers that this criterion has been justified.

ICOMOS considers that the serial approach is justified and that the selection of sites is appropriate.

ICOMOS considers that the nominated property meets criteria (v) and (vi) and conditions of authenticity and integrity and that Outstanding Universal Value has been demonstrated.

Description of the attributes

The attributes that convey Outstanding Universal Value are the framework of green hills that have shaped the development of the city, the reclaimed Atlantic forests that clothe the Tijuca mountains, the design of the Botanical gardens and other designed landscapes within Tijuca, the statue of Christ on Corcovado, the design of the Flamengo Park and the Copacabana promenade with its mural pavements, framed by green hills above an almost continuous curve of buildings. A clear description of the attributes needs to be set out for each of the component parts.

4 Factors affecting the property

Development pressures

Part of the hills of Rio have been occupied, since the end of the 19th century, by inhabitants of scarce resources who did not have access to urban lands registered for development. Many of these early settlements were well integrated into the geomorphology of the territory, such as around the ascent to the statue of Christ the Redeemer on Corcovado, and are not unharmonious.

However after the mid-20th century, the population of Rio increased so rapidly that new unregistered settlements, known as *Favelas*, flowed onto less stable land and across watercourses, leading to land erosion, floods and the consequent collapse of buildings.

The most affected areas have been the promontories of Tijuca and other hills located in the buffer zone; Since the 1990s, the local and state authorities have established a program of urbanisation of *Favelas* (the Favela-Bairro Programme) that aims to integrate these settlements into an urban order, and improve their infrastructure. Starting in 2010, a project called Ecological limits has been launched to re-introduce vegetation into the surroundings of the *Favelas*.

ICOMOS notes that an Operations Centre of the Municipality of Rio was inaugurated in March of 2011 to monitor the urbanised and natural area of the territory under its protection. This allows identification in real time of new settlements in the landscape and urban protection areas; as well as the areas of risk from floods and landslides. The Centre controls urban growth in the nominated area and in the proposed buffer zone.

There is still a need for individual areas such as the Tijuca National Park to patrol its boundaries to stop illegal trespass.

A further problem affecting scenic views is antennae on the summit of the mountains in the Tijuca National Park. The Park management has an inventory of these antennae and it aims to ensure that managers of the different branches will install fewer master antennae. Supplementary information provided by the State Party underscored the tight controls that are now in place.

Tourism pressures

The city receives very high levels of visitors to the landscape areas and parks and also to the Carnivals. The infrastructure and the size of the public spaces mean that for the most part these numbers do not impact adversely on the property.

Environmental pressures

The sea around the city of Rio, mainly Guanabara Bay and the port area, are affected by water pollution, due to discharges of waste water, fuel spill from ships and oil from the floating refineries that are located in the port.

A medium term project to clean the Guanabara Bay through containing water pollution is on-going. Regarding the beaches of Copacabana and Ipanema, the quality of water is largely adequate, because the discharges of the city are channelled away from the coast. In different points of the beaches, electronic monitors are located indicating the quality of water. However, in the rainy season it is acknowledged that the wastewater joins rainwater and drains to the beaches.

Supplementary information provided by the State Party stated that a specific Management Committee meeting will be held to address the issue on 29 May 2012. Monitoring of the Lagoon's waters was resumed in December 2011.

Natural disasters

During the summer, Rio de Janeiro is exposed to torrential rains, which cause floods, and landslides in certain parts of the territory. The Operations Centre of the Municipality of Rio does monitor the risk areas and classifies them according to the problem; there is an alarm system in operation with 32 stations. Climate change could exacerbate this problem.

Fire is also a cause of risk, mainly in the north of the Tijuca National Park, so air and ground inspection tours are made to detect the beginning of a fire and to act according to the protocol established by the Park administration.

Finally, the Park faces illegal hunting, the proliferation of domestic animals such as dogs and cats and the illegal extraction of plants. These actions are combated with periodic inspections and by environmental education, in

the Educational Centre at the Park Museum.

ICOMOS considers that the main threats to the property are urban pressures, illegal trespass, sea pollution, and the impact of extreme climatic conditions.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

The boundaries of the property are clearly defined in the series of plans, maps, development, zoning and conservation plans.

The delimitation of the nominated areas and buffer zones was undertaken in a way that ensures that the boundaries correspond to regulatory and administrative zones in each level of government, national, state and municipal; this means that all national and international regulations converge and that there is no confusion over responsibilities for acting within the territory.

ICOMOS considers that the boundaries of the nominated property encompass the main attributes of Outstanding Universal Value and that the buffer zone is adequate.

Ownership

The entire nominated property is owned by the Federal Republic of Brazil.

Protection

Legal Protection

The Tijuca National Park was created by Federal Decrees in 1961, with the name of National Park of Rio de Janeiro (*Parque Nacional do Rio de Janeiro*). Its current name was approved by the Federal Decree 60.183 of February 8 of 1967.

The Research Institute of the Botanical Garden was created by a federal autarchy under the auspices of the Ministry of Environment by a Law of 2001, which establishes its legal statutes, objectives, its structure of management and administration.

The *Pão de Açúcar* (Sugar Loaf) and Urca were declared national monuments under the Law N° 9.985, of June 18 of 2000.

The Institute of the National Historical and Artistic Heritage (IPHAN) and its predecessors have catalogued, since 1938, the entirety of the nominated sites and defined individual structures for national protection. These are listed in the nomination dossier. They include as well as Tijuca National Park and the Botanical Gardens, the Parque Lage mansion, Flamengo Park, Cara de Cão, Babilônia, Urca, Sugar Loaf, Dois Irmãos and Pedra da Gávea hills, São João fort, Santa Cruz

fort, and the urban landscape of Leme, Copacabana, Ipanema and Leblon beaches.

The Decree of IPHAN Nº 127 of 30 April 2009 – established the designation of Brazilian Cultural Landscape. The Executive Committee for the Nomination, in May 2009 requested an examination by IPHAN for the designation of the Rio de Janeiro Landscape, as a Brazilian Cultural Landscape.

In the 20th century, high buildings were regulated through the creation of a norm establishing that it was not allowed to build more than twelve stories in height. In the 1970, planning instruments were adopted to control urban growth toward the hills in order to protect the nature conservation areas, sanctioned in 1976. This means that construction is not allowed beyond 60 meters above the sea level in the surroundings of the *Pão de Açúcar* (Sugar Loaf) and in Urca and the limit of no more than 100 meters above the level in the other hills of the city, considered areas of forest reserve.

However the nomination dossier states that: *'With a commitment to respect the city's landscape, ensuring a balance between the city and its natural features, the latest town planning has sought to correct certain errors of recent years, including the lifting of the 12-storey limit in certain areas'*. ICOMOS notes that the implications of this are unclear.

Subsequent to the submission of the nomination dossier, the Master Plan for Sustainable Urban Development of the City of Rio de Janeiro enacted through Complementary Law No. 111 of 1 February 2011, substitutes the Ten Year Master Plan for the City of Rio de Janeiro.

This new Master Plan includes the following principles and guidelines:

- sustainable development as a means to promote economic development, social equity, and environmental and landscape preservation;
- valuing, protecting, and sustainable use of the environment, landscape, and natural, cultural, historical, and archeological heritage in the city's development and management;
- conditioning of urban occupation to preservation of the city's identity and cultural landscapes.

Land use and occupation will be regulated by limitations of density, of economic activities, of the right to enjoy the natural landscape of the city and of the quality of the urban environment.

A series of articles on the protection of the cultural sites and of the cultural landscapes including Articles 167, 168, 169 and 170 that establish that:

- the Landscape of Rio de Janeiro represents the most valuable asset of the city,

- heights of buildings shall be defined by the preservation and conservation of the integrity of the natural landscape.

Based on these new guidelines, in 2011 the Municipal Government began to apply the landscape concepts as a parameter of urban planning, for example through the implementation or new rules on the occupation of preserved properties in the Leblon neighbourhood.

However, the Master Plan is a general instrument that serves to establish planning policies and guidelines for the entire municipality. Only after such policies have been adopted in the different areas of the city including through specific laws, will implementation of the Plan be possible.

The Management Committee is working to ensure the adoption of possible additional protection measures for the nominated sites, enforced through enhanced preservation structures.

Buffer Zone

ICOMOS notes that the suggested buffer zone encompasses large areas that provide context for the nominated sites. Some of these areas appear to provide threats to the nominated area rather than protection. The real benefit of the buffer zone would appear to be in terms of protecting views and the broad setting of the nominated areas.

In 1992, the Ten Year Master Plan established Cultural Environment Protection Areas (APACs). These are defined as *"lands with a structural ensemble of relevant cultural interest, the occupation and renovation of which must be compatible with the protection and conservation of the environment and socio-spatial characteristics identified as relevant to the city's memory and the diverse urban occupation forged over time."* Each APAC is supposed to develop a management plan. Large areas of the low lying Buffer Zone is covered by APACs. However few of these currently have a management plan.

In the supplementary information provided, the State Party stated that if the property is inscribed each APAC will develop a Management Plan setting out stricter guidelines on preservation, and, if found necessary by the Committee, more restrictive soil utilization and occupation parameters for the respective complexes.

Further the State Party states that the Management Plan now under development will have the critical role of combining existing legislation on the protection of those areas encompassed within the property and its Buffer Zone with the correction of potential threats and possible remaining gaps in protection, so that preservation of the overall cultural landscape might be achieved.

Effectiveness of protection measures

The nominated areas all have adequate legal protection. Adequate protection for the Buffer Zone in terms of operationalising the APACs and extending them to cover all the Buffer Zone still needs to be put in place.

ICOMOS considers that the legal protection in place for the nominated sites is adequate. Appropriate protection for the Buffer Zone, in which lack of control could threaten the nominated areas, still needs to be put in place.

Conservation

Inventories, recording, research

Details are provided of inventories of protected structures but no reference is made to inventories of key components of the cultural landscape which are needed to form a basis for monitoring. In supplementary information provided by the State Party it is indicated that all current data will be converted into digital format.

The whole property has been extensively researched.

Present state of conservation

Tijuca National Park conserves the characteristics of the reforestation that was carried out in the 19th century. Some of its components such as roads and paths require maintenance, although fountains and springs, lakes and belvederes, are in good condition.

In terms of the issue of illegal settlements within the Park, the State Party in its supplementary information stated that the forty-six residential structures are inhabited primarily by former Park employees and their families. Measures to transfer residents are in the process of being developed, within the applicable legal and financial limits, and include possible compensation payments and/or social rent, among others. In 2011, a working group was established to address the transfer issue.

The scenic views from Christ the Redeemer in the Corcovado Mountain are safeguarded. ICOMOS notes that there is a project to improve services in the basement of the sculpture and considers that a cultural heritage impact assessment will be necessary before any detailed plans are agreed.

In general terms the conservation of the Botanical Garden is satisfactory. A renovation plan has been drawn up for the arboreal, shrubby and herbaceous vegetation. For example, the imperial palms that are almost dead are to be substituted by other new ones raised in the garden.

The ICOMOS mission was made aware of illegal occupation around the Botanical Gardens. In its supplementary information, the State Party stated that this issue will be the subject of discussion within the

Management Committee on 12 May. It is also stated that there are logistical and legal difficulties that prevent quick action. Over seventy final judicial decisions ordering removal of the residences in question have been handed down, but that execution of the orders by the Federal Public Prosecutor's Office has proved challenging, even with the assistance of the Brazilian Federal Police Department. The Federal Secretariat of Heritage has established a working group with the Botanic Garden to negotiate the removal of the families from the Park.

The *Passeio Público* reflects Romantic designs of the 19th century. All its original characteristics are present such as bridges, lake, channels, tree line, fountains and parterres. However ICOMOS notes that it requires more maintenance to its paths and hard landscaping.

Within the Flamengo Park the hard landscape features of Burle Marx's designs as well as the gardens of the Santos Dumont Airport, the Museum of Modern Art, the Paris square and the monument to the Dead in the Second World War, all of which are incorporated into the Park, are reasonably well conserved.

The landscape designs carried out by Burle Marx at Copacabana are generally in a good state of conservation. However ICOMOS notes that the mosaics require levelling and there is a need to reinstate missing pieces. There are also some spaces where trees need replacing to complete the original designs.

Up until a few years ago the coastline had been invaded by temporary constructions with unfortunate visual impacts. The Municipality is now controlling the urban furniture, such as kiosks and parasols.

At *Pão de Açúcar* (Sugar Loaf) the acrylic covers at the terminals of the cable car in the Urca Mountain as well as on the summit of Sugar Loaf are extremely deteriorated and need attention. The coloured lighting should also be removed because it contaminates the surrounding landscape.

Effectiveness of conservation measures

Currently conservation is patchy and tends to address different aspects of the attributes. ICOMOS considers that there is a need for an overall conservation strategy that is related to both the cultural and natural dimensions of the various sites.

In some specific areas, ICOMOS considers that there is also a need for specific conservation projects to restore aspects of the property such as the paving and planting along Copacabana, paths in Tijuca National Park, some of the key structural plants in the Botanical Gardens, the hard landscaping of the *Passeio Público* and the roofing of parts of the Cable car at Sugar Loaf.

In the supplementary information provided, the State Party indicated that these projects were already under development.

Although the nomination is about landscape on a grand scale as a backdrop to the city, there is still a need to ensure that the details of the individual sites are conserved so that their cultural value is not eroded and they can be appreciated on foot, at close quarters, and not just in long views.

ICOMOS considers that there is a need for an overall Conservation Plan or Conservation approach for the property and for Conservation projects at various sites to conserve their important details.

Management

Management structures and processes, including traditional management processes

The Tijuca National Park is managed by the Chico Mendes Institute for the Conservation of Biodiversity (ICMbio) under the auspices of the Ministry of the Environment.

Botanical Garden has its own management structure.

There are plans to establish a coordinating group to manage the Flamengo Park, the beach of Urca and the sea front of Copacabana.

The fortresses are managed by the Brazilian Army. Most of the fortresses are open to the public.

The challenges facing the enormous area of landscape included in the nomination are immense. A coordinated response that brought together all the agencies currently involved in the management of the separate parts could have huge benefits in terms of collaboration.

Supplementary information provided by the State Party stated that IPHAN had published a Decree to set up a Management Committee for the property in December 2011. This Committee had its inaugural meeting on 10th January 2012 and will initially meet twice monthly.

The Committee will be coordinated by IPHAN and will include representatives of the Ministry of Culture, IPHAN, the Botanic Gardens, the Tijuca National Park, the Ministry of Defence, the Rio de Janeiro State Government, the Rio de Janeiro Municipal Government, the Niterói Municipal Government and the University of Rio de Janeiro.

The main objectives of the Committee are to:

- Achieve compatibility between delimitation of the protected areas designated at the different levels of government and the area identified in the candidacy for World Heritage listing;

- Determine the joint management structure for the area;
- Develop the joint management plan for the area.

This Committee will initially be a Technical Committee whose main role is to deliver the Management Plan. An Executive Committee to carry out the Management Plan will be set up once the Plan has been completed. This will include representatives of those bodies exercising decision-making powers at the three levels of government in the nominated sites.

Policy framework: management plans and arrangements, including visitor management and presentation

The various elements of the series each have their own management arrangements and only some have management plans.

The Management Plan of the Tijuca National Park was completed in 2008. The Plan establishes actions to conserve the natural aspects of the Forest and to control its uses.

The Management Plan of *Pão de Açúcar* (Sugar Loaf) and Urca, was begun in September 2011 by the Brazilian Fund for Biodiversity (FUNBIO), and should be completed in March 2012. It will include: strategies for conservation, development and presentation.

In the supplementary information provided by the State Party it is stated that the new Steering Committee will draw up a Coordinated Management Plan for the whole property by October 2013.

In order for the Management Plan to be effective it needs to be based on a clear definition of the attributes of Outstanding Universal Value. Supplementary information provided by the State Party stated that between February and April 2012 each of the component sites would be delivering a detailed analysis of the attributes within their site. There will also be a need to identify attributes that over-arch individual properties and allow the property to be perceived as a whole cultural landscape.

The Management Plan will be approved by the President IPHAN, the President of the Chico Mendes Institute for Biodiversity, the Governor of the State of Rio de Janeiro, the Mayor of the City of Rio de Janeiro, and the other administrative authorities of the nominated property.

The Tijuca National Park receives around 1,2 million visitors a year.

The Christ the Redeemer on the Corcovado mountain and the *Pão de Açúcar* (Sugar Loaf) are some of the most emblematic and visited sites in the city of Rio. In the year 2006, 434,047 people visited the Corcovado arriving by train, while the *Pão de Açúcar* (Sugar Loaf),

which provides a view of Guanabara Bay, receives 35,000 visitors a month.

The number of visitors to the Botanical Garden and fortresses is not given.

Risk preparedness

There is a Heavy Rainfall and Landslide Alert System, monitored 24 hours a day and a fire alert system in the Tijuca National Park. ICOMOS notes that there is no overall Risk Preparedness strategy for the Property.

Effectiveness of current management

ICOMOS considers that without detailed inventories and recording of the assets of the landscape and without an overall framework for the coordination of management across all the component sites of the nomination yet in place, the effectiveness of management in addressing the need to sustain attributes of Outstanding Universal Value is limited. Undoubtedly some of the individual sites are well managed, but the lack of a coordinated and collaborative mechanism means that the real challenges that all sites as a whole face in sustaining the intactness of the cultural landscape cannot be adequately addressed. It also means that opportunities to consider management within the framework of sustainable development drawing in ecological and social, as well as cultural dimensions, cannot be given a high profile.

The State Party has stated that such a collaborative management framework in the form of an Executive Committee will be established once the Management Plan is completed in October 2012.

There is a need for this Committee to have the highest support at national and regional level in order to allow the management of the property to be taken forward in an inter-disciplinary way through reasoned responses to the many challenges that it faces.

The way the buffer zone is to be managed also needs to be defined as well as precisely what is being managed.

It is indicated that the Management Plan will be accompanied by Management Fund but few details are provided.

ICOMOS considers that the management system for the overall property is not yet adequate; there is a need to finalise the Management Plan and to put in place an overall management framework for the property that enjoys national and regional support and draws together all stakeholders. Furthermore, ICOMOS also considers that further details need to be elaborated as to how the extensive buffer zone will be managed and what the aims of their management are.

6 Monitoring

Monitoring indicators exist for the Tijuca National Park, the Botanical Gardens and the forts but no overall adopted indicators have been identified for the whole property related to the attributes of Outstanding Universal Value. However some draft indicators are listed within the framework for management.

Supplementary information provided by the State Party states that monitoring indicators will be developed as part of the Management Plan as well as a system for responsibilities for monitoring.

ICOMOS considers that monitoring indicators need to be further developed for the property.

7 Conclusions

It is not the city of Rio de Janeiro that is being nominated but the natural landscape within which the city developed, and the way this natural landscape has been shaped and extended over time to become an intensely valuable cultural asset for the city, which defines its identity and which is perceived to be of great beauty.

The focus of the nomination is the creative fusion between culture and nature at a macro scale: the grand landscape vistas of that part of the city of Rio that faces towards Guanabara Bay.

The revised nomination extends the scope of the property to include land around Guanabara Bay and thus the crucial interface between the city and the sea as well as between the city and its hills and mountains.

The nomination is for a series of four sites, the three areas of the Tijuca National Park, including Corcovado hill and the statue of Christ and the Botanical Gardens, and Guanabara Bay, including the Copacabana area and Flamengo Park to its west and Niterói Forts to its east. In considering views of Rio de Janeiro, these four areas cannot be perceived as being separate: they are part of one overall cultural landscape covering that part of the city that faces the sea. The nature of the landscape punctuated by hills and mountains overlooking the Bay means that views of this overall landscape can be had from many viewpoints, as is clearly identified in the nomination dossier.

The second crucial aspect of this landscape is the tight interaction between the open areas of the city and its built areas – which en masse contribute to this landscape but are excluded from the nomination.

A third equally crucial aspect is the benefits that these open areas deliver to the city in terms of open air living and a sense of place.

All of these factors point to the need for the nominated areas to be understood, documented, protected and managed together as facets of one landscape and for the interface between the landscape and buildings to be a key focus of management.

ICOMOS further considers that although the cultural landscape is drawn on a large canvas, its management does need to respect the smaller details of the component parts and to this end detailed records and inventories are necessary to underpin conservation and adaptive.

In its supplementary information the State Party has set out how the newly established Management Committee will draw up the Management Plan by October 2013 and, once it is adopted, an Executive Committee will be put in place to deliver the Plan. The supplementary information also states how the Management Committee will clearly define the attributes of Outstanding Universal Value and develop monitoring indicators and it will also consider the protection offered by the Buffer Zone and address any gaps in its protection, as well as putting in place management plans for the various APACs that are in place.

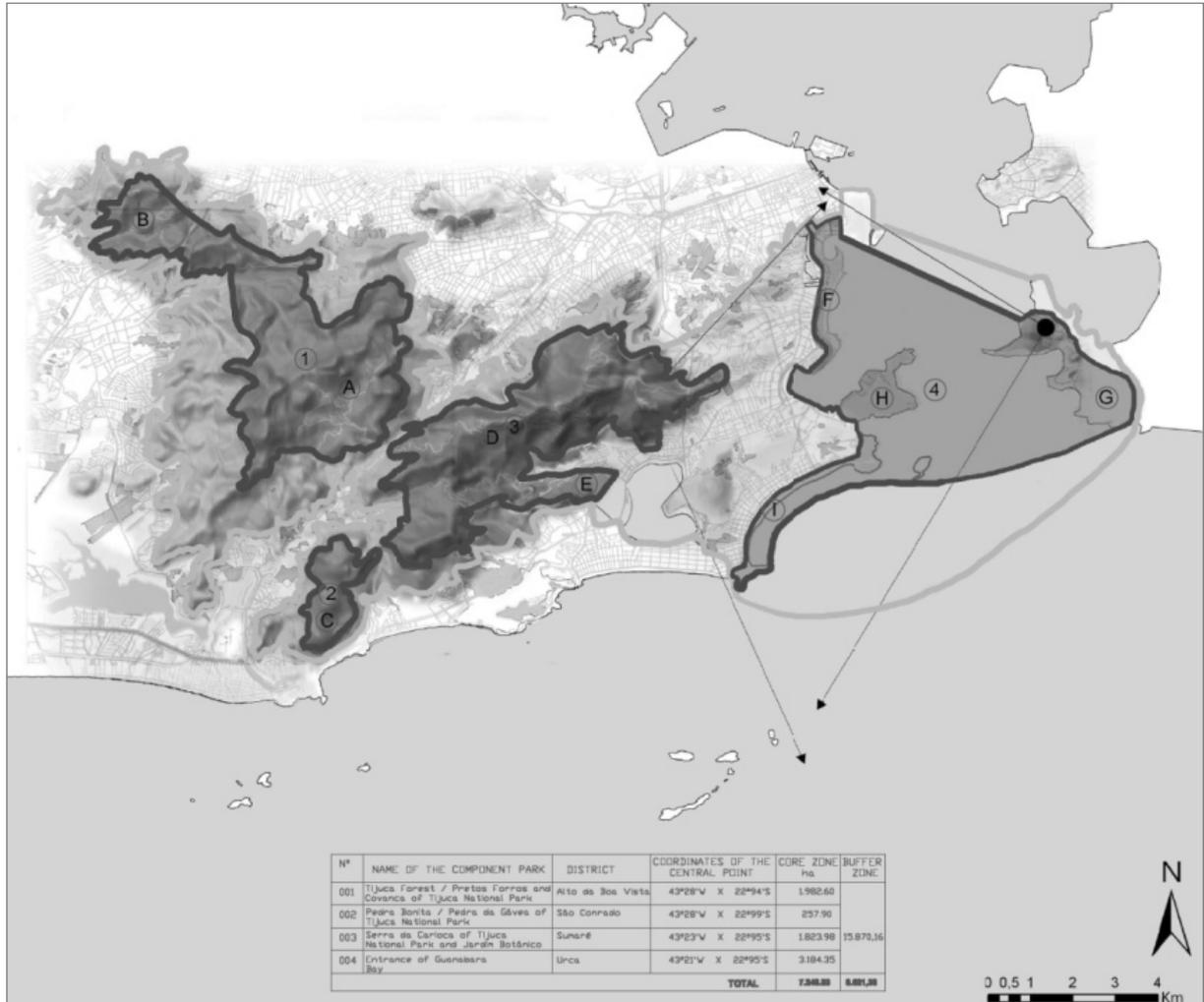
Currently therefore progress has been made towards an overall coordinating body for the various component sites of the serial property, in line with the requirements of the *Operational Guidelines*, but this is still not in place.

Recommendations with respect to inscription

ICOMOS recommends that the nomination of Rio de Janeiro, Carioca Landscapes between the Mountain and the Sea, Brazil, be **referred back** to the State Party in order to allow it to:

- Put in place an overall management framework for all the component parts of the serial property that draws together the management of the component sites and involves all key stakeholders in line with the requirements of *Operational Guidelines*, paragraph 114.
- Complete the Management Plan for the property;
- Provide details as to how the buffer zone will be protected and managed;
- Put in place a system for defining, recording and inventorying the key components of the overall cultural landscape;
- Define monitoring indicators related to the attributes of Outstanding Universal Value;
- Provide more details on plans to address water pollution.

ICOMOS further recommends that the State Party give consideration to developing an overall Conservation Plan or Conservation approach for the property.



Map showing the boundaries of the nominated property



Corcovado Peak – Christ Redeemer



Copacabana Beach from Leme Fort



Flamengo Park



Guanabara Bay