

Resort design in Mauritius establishes a benchmark for future development

by Graham A Young and Johan Nel Prinsloo

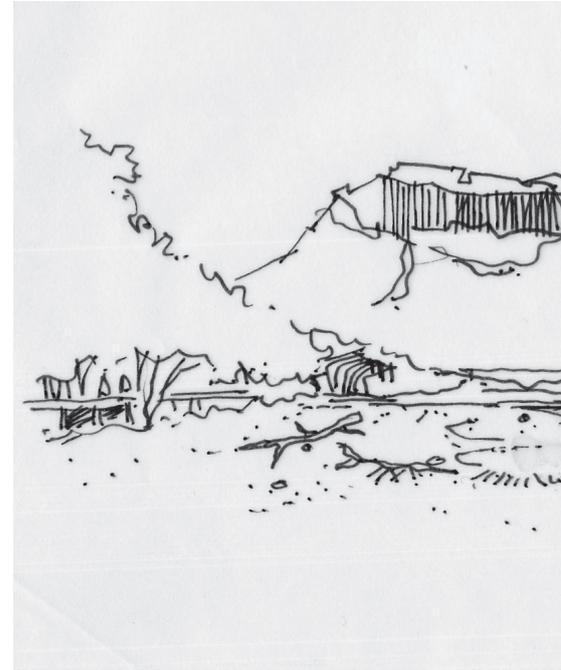
The sustainable approach and contextual sensitivity of the Corniche Bay Integrated Resort Scheme have been cited by the government of Mauritius as a precedent for future hotel developments on the island. The project introduced a botanical paradigm shift with a rigorous zeal towards applying, where possible, an indigenous planting palette. The design also represented a shift from the thematic responses that are most frequently encountered in similar commercial projects and hopes to create a contemporary place rooted in the patterns of the island's ecological, cultural and built environments.

Corniche Bay is situated near the town of La Gaulette on the southwestern coast of Mauritius, bordering the Le Morne World Heritage Site. The scheme comprised 120 hillside villas, a Gary Player signature golf course, and a 150-room beachfront Banyan Tree hotel and spa. Working with the Prizker Prize-winning architectural firm Foster & Partners of London, the landscape architects sought to produce a response that is of an international standard.

Foster & Partners conceived a master plan for the project in collaboration with the engineering firm Arup. The landscape architects were then tasked with reviewing and informing the master plan, conceptualising the landscape design approach and conducting research to establish an on-site indigenous nursery.

Once the home of the extinct dodo, the Republic of Mauritius has become archetypical of the tension between human intervention and the biophysical environment. Since the Portuguese set foot on the island in 1509, it has become a collector of the exotic: less than 2% of the island's vegetation cover can be considered indigenous and the concept of a "first people" is non-existent.

The island is a kaleidoscope of peaceful paradoxes: invasive guava plants that line the roads have become the objects of festive fruit picking outings on public holidays, the clear ocean waters are strewn with beautiful Hindu offerings, Catholic shrines are entombed in mystical Banyan trees from the East, and the biologically competitive *Casuarina* trees along the coastlines leave no room for natural forests, but create high canopies that provide shade for the endless picnic-goers.



It is impossible to imagine and naïve to long for an untouched Mauritius; an island isolated from the world. Working within this context, the formulated design approach was to extract the physical and non-physical layers of the site through research and site analysis and to conceive a landscape design that, as a new layer, critically responds to this depth of context. These layers can loosely be grouped into the biophysical and cultural contexts, and the proposed context of the master plan.

Biophysical context and landscape design response

The 176-hectare site has dramatic views of Le Morne Brabant, Ile aux Bentilier (the coral formations found in the vicinity of the island), the village of La Gaulette and the setting sun over the Indian Ocean. Topographically, the site can be classified as a hillside and a coastal area, separated by National Road B9 running parallel to the coastline.



→ Sensitive placed boardwalks at the interface between sea and land would offer spectacular views of Le Morne Brabant.

The site's lush green vegetation can easily deceive the onlooker into thinking that it reflects a healthy ecosystem. On the contrary, the hillside area is largely overtaken by invasive species such as *Albizia lebbbeck* [fr. *Bois noir*] and star grass. The former is a fast-growing exotic pioneer tree and the latter was planted as grazing for deer when the site was used as a hunting ground after 1993. Prior to this, the site was cleared of its indigenous vegetation for the cultivation of sugar cane.

The lower, coastal part of the site is choked by exotic and invasive eucalyptus and acacia species, but a mangrove forest on the southern edge has significant ecological value. There are two Banyan trees (a fig tree, usually *Ficus benghalensis*, with aerial shoots that descend to the ground to form additional trunks) on the site, which signify gathering places (or places of business) and eternity in Hindu mythology. Another significant characteristic of the site is the presence of various

drainage lines that flow down the hillside, transporting storm water run-off to the ocean. These lines are characterised by dense vegetation and smooth rocks and pebbles that line their surfaces. Basaltic boulders are scattered throughout the site.

In spite of the dramatic topography and views, the site is ecologically barren. As a result, rehabilitation of the landscape became a central concept of the design strategy. The complexity of rehabilitation in Mauritius can be understood given that the few nurseries stock a limited palette of indigenous plants and little is known about the "original" island ecologies.

Although the Mauritian Wildlife Foundation (MWF) has done excellent work in collecting and propagating indigenous plants to ensure gene preservation, the project has not yet reached a scale where it can start to feed the commercial nurseries. Exacerbating the problem is the fact that the marketing image

of a lush tropical environment has been entrenched in the expectations of visitors to the island, and most hotel developments seek to provide this image through landscaped gardens of exotic tropical vegetation that require extensive irrigation in what is a surprisingly dry climate. The nurseries continue to meet this demand and there is no commitment to "going indigenous".

The first response to the problem was the proposal of an on-site nursery dedicated to the cultivation of indigenous plants. This was a first for commercial Mauritius. The facility would be established and operated by a local nursery, would employ local labour and would work in close cooperation with the MWF. If successful, the nursery would become a destination in itself and work with other future developments in the Le Morne area to expand this ambitious and necessary project. It is hoped that this will be the beginning of a paradigm shift for the nursery industry in Mauritius.



→ An image illustrates the shift to an indigenous rather than a "tropical" landscape theme.

The second response was the development of a strategic, phased approach to the rehabilitation of the site. Phasing is necessitated by the lack of planting stock, the need for an immediate green environment when the development is operational, and budgetary constraints. Briefly, the strategy is to plant all areas disturbed during construction (villa and hotel building sites and road verges) with fast-growing indigenous plants that are more commonly available. Rarer species that would require special cultivation and were not available *en masse* would be planted in spaces that are visually pronounced (for example, pathway crossings and courtyards) to communicate their significance and evoke interest. An understanding of the plants through education was promoted by the design and became an important contributor to the botanic paradigm shift.

Since most indigenous trees, for example, the ebony (*Diospyros tessellaria*; fr. *Bois d'Ebene*), are extremely slow growing, selected exotic trees (for example, the albizias) are kept for their spatial, sculptural and sheltering value until the indigenous trees have grown sufficiently. This is a necessary measure to provide habitable outside spaces when the sweltering sun turns to the west and the Indian Ocean winds thunder against the land. Exotic species such as the eucalyptus will be removed from the outset as they inhibit succession.

Another response to the biophysical context inspired one of the most important concepts of the master plan, namely the idea that the drainage lines become "green fingers" that connect the hillside with the ocean. These lines also become the main structuring device of

pedestrian movement from the upper slopes down to the golf course and beachfront hotel.

Visitors are immersed in the landscape (away from the views experienced from the buildings), including dense forests with unexpected bodies of water.

Cultural context and landscape design response

Mauritius, which was known to Arab sailors as long ago as the 10th century, has been inhabited by Portuguese, Dutch, French, British, Indian, African and Chinese farmers, businessmen, aristocrats, slaves and soldiers of Buddhist, Muslim, Hindu and Christian belief. This rich cultural diversity is reflected in the colourful tapestry of celebrations, shrines, building styles, temples, churches, dress, languages, decorated buses and thematic resorts.

Significant to the vicinity of the site is Le Morne Brabant, a mythical volcanic rock that rises from the sea. The almost inaccessible cliffs of the outcrop were frequently occupied by groups of maroons (runaway slaves) in the 18th and 19th centuries to avoid capture. It was granted UNESCO World Heritage Site status in 2008. The Le Morne Brabant peninsula is one of the most striking landscapes of Mauritius.

The cultural diversity and resulting lack of a well-defined architectural vernacular render a thematic response to an existing style problematic. Most hotel developments on Mauritius are stylistically modelled after vague images of sugar plantation mansions or primitive (Polynesian) “island huts”. Landscape elements such as street furniture often perpetuate these themes. In contrast, the Corniche Bay landscape design does not attempt to stylistically reflect any one of the many cultures (real and imagined), but rather takes cues from local patterns (such as salt pans), building techniques and materials (for example, basaltic rock walls), and contemporary landscape architecture design ideas.

In responding to the dense meanings of the landscape, it was decided to design spatial interventions that evoke interest and hint at content, rather than to translate ideas literally into form. As with the ecological education, the content (for example, the island’s slave history) is to be accessible through a digital field guide.

The most obvious response to the cultural landscape is the layout of the master plan, which is affected by the fact that the site is partially located within the Le Morne World Heritage Site buffer zone. To create a diffused edge (to prevent a definite boundary line in the landscape), landscape “wedges” from the site were allowed

to penetrate the heritage site and vice versa.

Master plan and landscape design response

The original master plan, drawn from the natural topography of the site, consists of a road network following the contours of the site, a nine-hole golf course on the hillside area with the gentlest slope, villa sites that are orientated for optimal privacy and views, a beach reclamation strategy, an infrastructural system that promotes sustainability (for example, grey-water harvesting and solar-heated geysers) and an architecture with curving timber constructions that undulate from one building to the next, giving the whole hotel development a bold and unified language that blends with the organic forms of the surrounding gardens.

The landscape architects’ first response was to evaluate the original master plan critically to inform the proposed landscape-related concepts. Most importantly, the concept of a lush, tropical environment was questioned in view of the findings concerning the biophysical environment. The complexities of the planting strategy were brought to the master plan and thereby added an important layer to the scheme on a planning (cost estimation and nursery site selection) and conceptual (visualisations of the landscape that departed from the tropical settings of the original marketing images) level. Another area of concern to the landscape architects was the drainage line crossings. The road layout included high-level crossings that required extensive and disrupting earthworks. The landscape architects proposed low-level crossings by means of low-water bridges that would collect pockets of water and immerse the visitor in the landscape in juxtaposition to the general spatial

experience on site that is dominated by long-distance views.

Landscape design responses

Landscaping around the hillside villas provides the paradox of privacy and prospect through a grading of vegetation density and height. One approaches the villa through a dense broad-leaf forest, enters the villa and is encouraged to move forward by the linearity of a planted interior wall, moves through the simplistic interior space and is spatially released onto a deck where the dramatic views over low, flowering plants of Le Morne and the ocean are revealed. Framing these views are the sculptural *Bois noirs* (until the indigenous trees are sufficiently mature). Privacy during landscape establishment is ensured by the use of a filigree screen (a repetition of vertical timber poles) that wraps around from the back to the sides of each unit. The screens are positioned to define outdoor shower areas that are linked to the bathrooms. Tall trees contribute to a sense of showering in a forest rain. The *genus loci* of areas on the site that have special qualities are amplified through subtly designed interventions. These places are linked to a digital field guide. The experience of landscape is exalted by the knowledge of landscape. These places include a viewing platform with reference to Le Morne, rest areas in the drainage lines where small pockets of water are collected, a sculptural intervention that alludes to the maroon pathway, sunken walled gardens and Banyan tree clearings.

Whereas the hillside villas are focused on an experience of views and mountainside, the primary concern for the hotel units is the connection with the sea. A patterning of dense vegetation strips that run acutely to the coastline ensures

privacy between the units, with low vegetation in front of the decks that allows visitors to enjoy views of the sun and the sea that touch in the west. These green streaks are contrasted by white sand paths that lead to the beachfront and black strokes of basaltic stones that allude to the dark beaches found naturally in Mauritius. The landscape architects have proposed that the roofs of the units be redesigned to accommodate planting to minimise the visual impact on the landscape and to act as an insulation layer.

The L-shape of the main hotel building forms a central space that can be read as the heart of

the resort. The dining areas and individual spa treatment rooms are arranged around this space, giving it additional importance. The space acts as an anchoring point from which a series of lines create a visual and spatial connection to the sea. These lines become the ordering device for pathways and the gardens that celebrate and feature coastal vegetation.

Only the portion of the seafront that is outside the World Heritage Site buffer zone is to be converted into a sandy recreational beach. The area within the buffer zone has been conceptualised to enhance the natural and rugged beauty of

the shoreline with sand only being introduced above the high-water mark. A timber boardwalk runs parallel to the coastline and is interrupted by a series of pavilions from which visitors can experience solitude in contrast to the energetic activities of the recreational beach.

In line with the design approach of celebrating and responding to the real contexts of the site, the beachfront is serially interrupted by pockets of basaltic boulders that hold soil for the growth of salt-tolerant coastal vegetation that positively disrupt the marketing images of white sands and palm trees.



Project significance

Although endeavours to design places with meaning are always contentious, it has been attempted (not ignored or prostituted) to design a place where the visitor is immersed in the layers of the landscape through a network of spatial (*in situ*) and informative (*ex situ*) references.

The project intends to not only allow the visitor to enjoy the obvious resort experience, but also to engage the visitor in the historical and contemporary culture of Mauritius and to ground him or her in the landscape of the place.

Although the project was never built, it has set a precedent that is referred to by the authorities as a desirable response to resort development in Mauritius – an example for projects that should enter into dialogue with the culture and environment that they propose to fit. 🌱

Acknowledgement

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Graham Young and Johan Nel Prinsloo are landscape architects in the Department of Architecture at the University of Pretoria. Through NLA & Green Inc Landscape Architects, they were recently involved in the planning of a resort scheme in Mauritius.

Their aim was to follow an atypical approach to the planning and layout of the scheme and introduce a new way of thinking about resort development on the island. This was embedded in sustainable thinking and place-making that related to the inherent qualities of the landscape and culture of the island, rather than trying to create another artificial “palms and white sand” scenario, which is so prevalent on Mauritius and favoured by most developers. Fortunately, the client, along with the lead architects, Foster & Partners from London, shared this enlightened view.

In 2009, the project was awarded a merit award by the South African Institute of Landscape Architects (ILASA)

