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Author(s): Valerie Fraser

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Cannibalizing Le Corbusier

The MES Gardens of Roberto Burle Marx

VALERIE FRASER
University of Essex

In 1929 Le Corbusier traveled to South America, delivering a series of lectures in Buenos Aires in October before moving on to São Paulo and Rio de Janeiro. He had resolved not to lecture in Rio, but he found the city such an overwhelming experience, a place where, as he put it, “ideas attack you,” that he could not resist, and the result was a typically radical proposal to deal with Rio’s two fundamental urban problems—traffic congestion and lack of space for expansion—while also exploiting the city’s spectacular setting.¹ His vision was of a vast motorway, 100 meters high, built on top of ten stories of housing and offices that would themselves be elevated on 30-meter-high piers (Figure 1). In plan this superhighway would sweep around the coast from promontory to promontory in graceful curves, but in elevation it would describe a “faultless horizontal” above which he believed the famous peaks of the city—Pão de Açúcar, Corcovado, Gávea, and Gigante Tendido—would be seen to advantage (presumably viewed from a steamer, out at sea).² Of course, the scheme was not realized, and unsurprisingly Rio’s urban problems persist.

In one area, however, there have been remarkable achievements: the city and the landscape have been linked not in the way Le Corbusier suggested, by a space-age superhighway, but by the gardens of Roberto Burle Marx (1909–1994), who from the 1950s on was responsible for laying out most of Rio’s miles of coastal parks, gardens, and promenades. Created largely from reclaimed land, these provide a *cordon sanitaire* between the congested streets and

the spectacular beaches and establish a stylistic language that can be recognized in much more restricted spaces in the other parts of the city. The public gardens around Santos Dumont airport, designed in 1952, were extended a couple of years later to create the Museum of Modern Art’s spacious park, and then, matching the southerly tide of urbanization, gardens were laid out along the Gloria and Flamengo waterfronts and around Botafogo Bay, continuing with the famous promenade along Copacabana beach in the 1970s (Figures 2, 3, 4). All these have aspects of Burle Marx’s unmistakable stamp: the bold informality of the beds, borders, and walkways; the massed planting to create blocks of color and texture; the dramatic grouping of large tropical shrubs and trees offset against the sea, the city, or the mountains; the use of flowering trees, chosen to provide a changing sequence of colors throughout the year; pools that reflect the sky between the reeds and lily pads; occasional clusters of rounded pebbles or gigantic, dolmen-like boulders; and the use of colored mosaic pavements with changing patterns and rhythms, from staccato geometry to undulating black and white stripes that echo the sea beyond.³ This landscaping is not an intervention of the type Le Corbusier had in mind, but it can be seen as a very Brazilian response to his grandiose idea.

Burle Marx created so many gardens like these throughout Brazil and beyond that their easy grace now seems familiar, almost obvious, and their radical originality is lost. In recent years, like the architecture of the Mexican

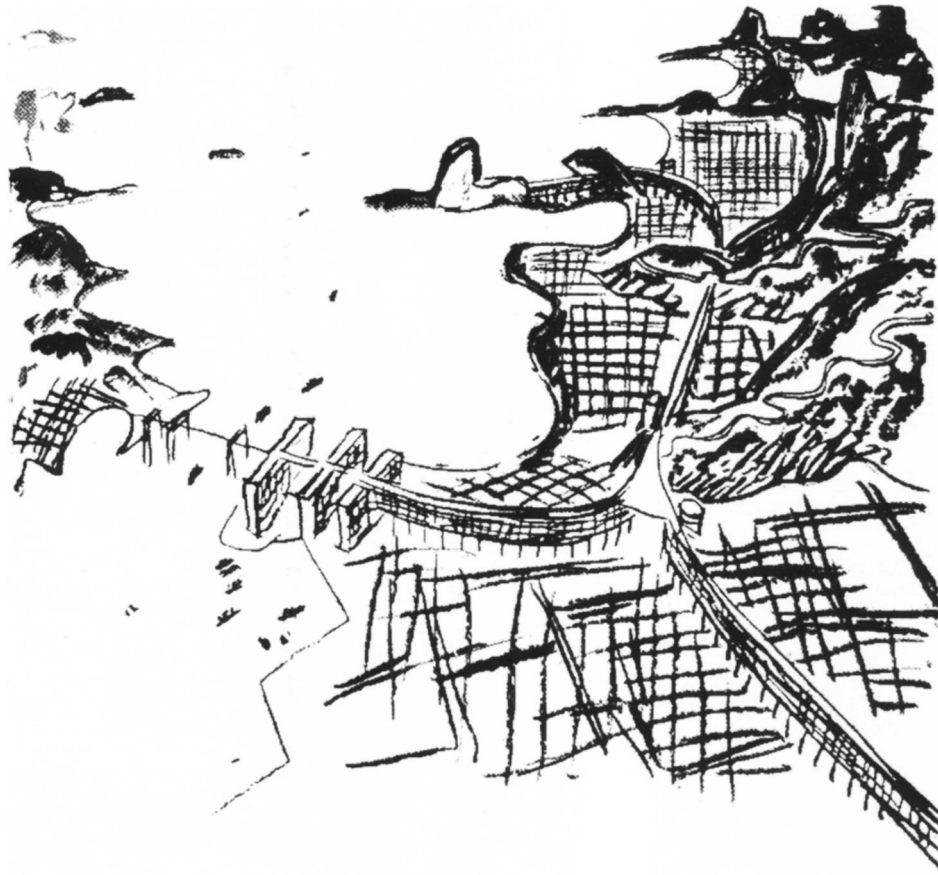


Figure 1 Le Corbusier, sketch for a master plan for Rio de Janeiro, 1929. From Le Corbusier, *Precisions on the Present State of Architecture and City Planning* (Cambridge, Mass., 1991), fig. 225

Luis Barragán, Burle Marx's gardens are among the few aspects of twentieth-century Latin American artistic endeavor to be considered sufficiently mainstream and uncontentious to have been given—in 1991—the seal of approval of a New York Museum of Modern Art exhibition.⁴ The literature on Burle Marx is limited, and while commentators acknowledge that he was an enormously thoughtful and cultured person—a painter, sculptor, and architect, as well as a botanist and gardener—there has been little serious consideration of sources, especially from outside the field of landscape gardening. It is as if his work were peripheral to the modernist movement in Brazil, as if his acknowledged interest in contemporary art and architecture had little to do with his practice, and, conversely, that his practice had little direct impact on the art and architecture of his times.⁵ It could be argued, however, that his early garden designs, and especially his mosaic pavements, in effect weaned Brazilians on to abstraction, preparing the way for the abstract artists of the 1950s, and that his skill at enhancing the buildings he worked on contributed to the early enthusiasm for modern architecture in Brazil, and for modern Brazilian architecture abroad.



Figure 2 Roberto Burle Marx, stone and cactus garden, Museum of Modern Art, Rio de Janeiro, 1954. Photograph by Marcel Gautherot, late 1950s



Figure 3 Roberto Burle Marx, garden of the Hospital Sul-América, Rio de Janeiro, 1955. Photograph by Marcel Gautherot, late 1950s

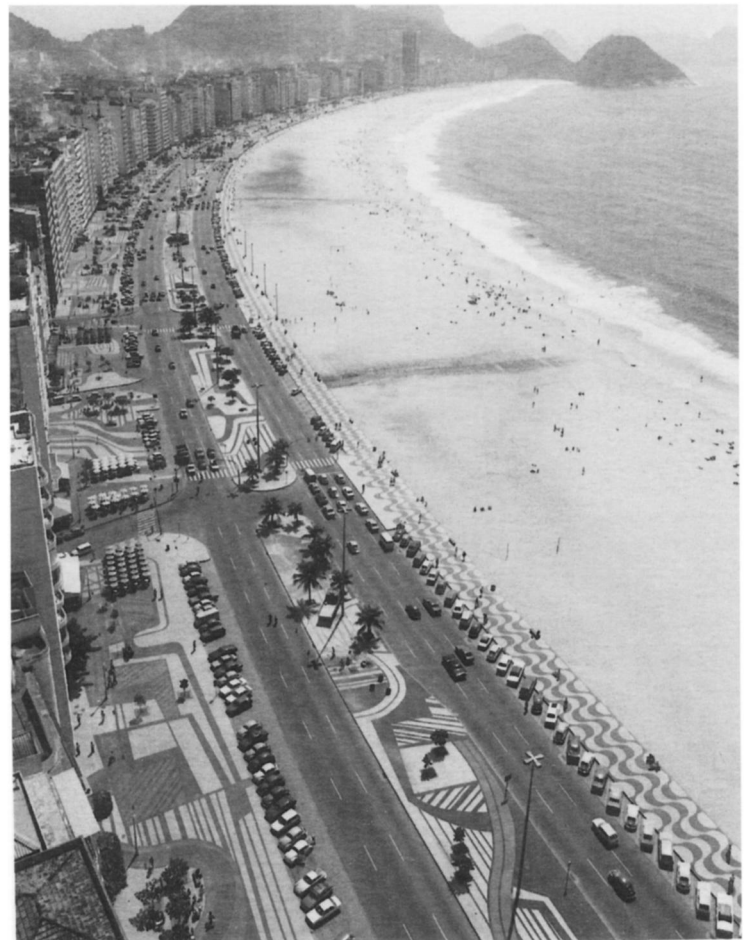


Figure 4 Roberto Burle Marx, mosaic pavements and plantings, Copacabana, Rio de Janeiro, 1970. Photograph by Marcel Gautherot



Figure 5 Roberto Burle Marx, roof garden of the exhibition wing of the MES building, Rio de Janeiro. Photograph by Marcel Gautherot, c. 1950

That argument is beyond the scope of this paper, however, which focuses on Burle Marx's first major work for an architectural setting. When he was commissioned to do the gardens of the new Ministry of Education and Health building in Rio de Janeiro in 1938, what we now see as his distinctive type of design was already there, fully formed (Figure 5).⁶ "Suddenly," as Pietro Maria Bardi rather ingenuously put it, "Roberto had the idea of introducing new modes that would be better suited to the dramatic nature of the tropical landscape."⁷ But where did this idea come from so suddenly? My purpose here is not to trace a sort of stylistic genealogy for Burle Marx from, say, Italian Renaissance gardens or English picturesque landscape, but rather to suggest some contemporary intellectual sources for his work and its special relationship to modern architecture. This is therefore an attempt to recuperate the radicalism of Burle Marx and, particularly via Le Corbusier, to investigate an aspect of the fruitful tensions that existed between South America and Europe in the earlier decades of the century.

Burle Marx: Political Planting

Our consideration of the origins of Burle Marx's gardens can be conveniently, if roughly, divided into two areas: the content—his use of indigenous Brazilian flora; and the form—his fluid, irregular plans. One of the sources of inspi-

ration for the former, to which he himself often referred, was visiting botanical gardens in Dahlem in Germany while he was still a student. In 1928, at the age of eighteen, he went to Berlin to study singing and drawing. He would go to the gardens to draw the tropical flora and was deeply impressed by the way plants that grew wild in Brazil were there carefully cultivated and valued, and also used for decorative effect.⁸ This was no doubt an important discovery for him, but it did not occur in a cultural vacuum. Burle Marx's family belonged to the educated cosmopolitan elite of Brazil for whom the European capitals were generally much more familiar territory than the interior of their own country. They educated their children in Europe, crossed the Atlantic regularly, subscribed to European periodicals, and paid prestigious European artists and intellectuals like Le Corbusier, Pirandello, or Lévi-Strauss to come and keep them up to date.⁹ Meanwhile, of course, European artists and intellectuals in search of ways of breaking with tradition were looking beyond the Continent for inspiration, so that cultural relations between Europe and Latin America in the early decades of the twentieth century are best seen as a sort of hall of mirrors, reflecting back and forth a series of often fragmented or distorted images and ideas.

For many Brazilians, Europe was the catalyst for their discovery of Brazil. On returning from travels in Europe, the painter Tarsila do Amaral and the *modernista* writers Mário de

Andrade and Oswald de Andrade were predisposed, through contact with people like Picasso and Blaise Cendrars, to discover the richness and complexity of their own country—the colors of the favelas, African religion and ritual, the excitement of carnival, and the mystery and exoticism of the jungle and the native flora—but at the same time they also wanted to see such things from their own perspective. The desire for an authentically Brazilian form of Modernism, one that could mix both superstition and rationality, is vividly expressed in Oswald de Andrade's Pau-Brasil Poetry Manifesto of 1924, an appeal to poets to embrace the contradictions of the “medicine men and military airfields,” “the jungle and the school” of contemporary Brazil, and to acknowledge them as “barbaric but ours.”¹⁰ For intellectuals like Oswald and Mário de Andrade, the reclamation of those elements of Brazil that were not urban, middle-class, and Westernized meant recognizing that they themselves, as Brazilians, belonged in some way to the European image of the exotic other. It also meant overcoming their traditional fears of medicine men, the jungle, and the barbarism that existed beyond their own immediate urban environments. Fear was always an important component in Europe's fascination with tropical America—fear of potentially hostile peoples, savage animals, poisonous insects, or uncontrollable plants. The Pau-Brasil Manifesto can therefore be seen as part of what we might call a “Reclaim the Jungle” movement, an attempt to reclaim for Brazilians an idea traditionally associated with danger and to make it accessible to the urban intellectual imagination. “Wild, naïve, picturesque, tender,”¹¹ yes, but not frightening. This paved the way for Tarsila do Amaral's powerful paintings of the later 1920s, where, in an ironic play on Europe's ancient fears, she reclaims the myth of the Brazilian cannibal, placing her proud, monstrous figures in landscapes of giant cacti and bananas.¹²

The architect Rino Levi was perhaps the first to articulate how a “Reclaim the Jungle” movement could work in relation to the urban environment. In an article of 1925, Levi argues for the need to study European theories of town planning to help work out a way forward for Brazil, but

[b]ecause of our climate, because of our nature and customs, our cities ought to have a different character from those of Europe. I believe that our rich vegetation, and all our incomparable natural beauties can and must suggest to our artists something original—to give our cities a touch of liveliness and color unique in the world.¹³

Roberto Burle Marx began to put this into practice shortly after his return from Europe. One of his first commissions came in 1932 when, at Lúcio Costa's instigation,

he laid out the garden for the home of Alfredo Schwarz in Copacabana, a house designed by Costa and Gregori War-chavchik.¹⁴ He complemented the cubic architecture with a series of raised beds in geometric patterns. This was followed by a three-year appointment in Recife (1934–1937) overseeing the refurbishment of the city's neglected parks and squares, which he carried out using native plants and trees. In the Schwarz residence he had started from scratch and had concentrated on the patterns, colors, and designs of the garden. In Recife he was working on a very different scale, with parks, squares, and gardens that had been laid out in the nineteenth century; here his primary interest was in the types of plants and the effects that could be made by planting up formal, rather French-style gardens with ficus, palm, banana, or cactus rather than roses, box, and cypress. He enjoyed the challenge. His drawings for the various Recife projects show great attention to the characteristics of the different types of plants, the patterns created by the leaves, the effect of grouping squat, broad-trunked trees with dense foliage behind a row of tall palms, or of juxtaposing spiky-leaved ferns against curving branches or broad philodendron leaves, or of using giant water lilies that make the pools look like tables laid for a sylvan dinner.¹⁵

In interviews Burle Marx liked to tell stories of how patrons and connoisseurs were horrified to find a garden elaborately planted up with what they considered to be uncultivated plants, common or garden weeds.¹⁶ It is hard to imagine now how shocking this must have seemed in the 1930s. For centuries the wealthy elite of Brazil had seen the Europeanization of their cities and their culture as the goal. In Recife in the northeast, where so much of the land is semiarid and the consequent poverty of the population had been so vividly exposed in books such as Euclides Da Cunha's *Os sertões* of 1904, the idea of a city garden planted to look like the local desert scrub forest, the *caatinga*, must have seemed extraordinary.¹⁷ In Rio de Janeiro, far to the south, the fear was of the city reverting not to desert but to jungle, and to incorporate tropical plants into the parks and gardens of a city that was perpetually threatened by vegetation cascading down the mountain slopes was also truly radical. Burle Marx, a lifelong socialist, believed that “a garden must have didactic qualities. From a garden one can teach many lessons, and encourage people to live better.”¹⁸

Moving from the content to the forms, from the plants to the designs, the roof garden of the two-story wing of the MES building in Rio marks the apparently sudden emergence of one of Burle Marx's most characteristic design features—sinuous, liquid, meandering curves and amoebic blobs. His gardens begin as painted plans, and in this case the finished garden, viewed from the roof of the main six-



Figure 6 Roberto Burle Marx, plan for the roof garden of the exhibition wing of the MES building, Rio de Janeiro, gouache on paper, 1938. Photograph by Conrad Hamerman

teen-story block, resembles an abstract painting of biomorphic forms framed in the rectangle of the enclosing parapet (Figure 6).¹⁹ It also resembles a miniature landscape, like a physical map or aerial photograph of a segment of flat tropical wetland, the paved area suggesting a slow-moving river meandering back and forth and the planted areas, the banks and islands. It is framed but not tamed; it seems as if, beyond the lens of the camera, the grid of the map, the pattern, will continue unchecked over an infinitely larger area. In Burle Marx's work there are often several visual paradoxes at work. Is nature abstract? Is it geography or microbe? Which is figure, which is ground? Path or water? Within this garden does one walk, as it were, on water? Although, of course, in rain forest and wetland there is no paradox: the pathways *are* the waterways.

But is Burle Marx's use of the forms of the tropical wetland as the basis for the design of this garden just part of a broader reclamation of all things Brazilian, the "barbaric but ours" umbrella, or does it have more specific connotations? I want to argue that the fact that he first uses this type of design on the MES building in Rio is not a coincidence. This building, one of the first high-rise slab blocks to be built anywhere in the world, was of great symbolic significance, "designed to project an image of Brazil's modernity to the rest of the world" (Figure 7).²⁰ In 1936 the minister of education, Gustavo Capanema, overruled the results of a competition for the design of his new ministry building and appointed Lúcio Costa head of a design team of young modernist architects consisting of Carlos Azevedo Leão, Jorge Machado Moreira, Affonso Eduardo Reidy, Ernani Vasconcellos, and Oscar Niemeyer. Capanema also invited Le Corbusier to act as consultant, a position he was pleased to accept. During the late 1920s and early 1930s Le Corbusier was not having much success in seeing his various large-scale projects built, so the Rio ministry scheme was

particularly attractive; it also gave him the opportunity to return to Brazil.

Le Corbusier in South America

Le Corbusier's earlier South American tour had aroused considerable interest among intellectuals, not all of it positive. Brazilian radicals rejected the traditional genuflection to all things European. Filippo Marinetti's visit to São Paulo in 1926, for example, caused a riot: the Futurist was pelted with rotten eggs and vegetables and had to abandon his lecture because, his opponents argued, they were tired of being lectured at by Europe.²¹ Although Le Corbusier did not receive such treatment during his visit of 1929, he was not universally welcomed. The report in the modernist journal *Movimento Brasileiro* described how he had aroused great excitement, but Lúcio Costa, later one of his greatest admirers, found Le Corbusier impossibly self-important and walked out of his lecture.²² Mário de Andrade, commenting on his arrival in São Paulo, lamented that Latin Americans still felt it necessary to invite famous Europeans to come and tell them how to think.²³ The theme is taken up again in 1931 when Menotti del Picchia sketched the outline for a play in which Le Corbusier is caricatured as a sort of guru who attracts a following of wide-eyed inno-



Figure 7 Lúcio Costa, Affonso Eduardo Reidy, Jorge Moreira, Carlos Leão, Oscar Niemeyer, and Ernani Vasconcellos, with Le Corbusier as consultant, MES building, Rio de Janeiro, detail, north façade, 1936–1942. Photograph by Marcel Gautherot, c. 1950

cents: they listen enthralled as he pompously proposes to dismantle their capital and reassemble it as if it were a box of children's toys.²⁴ Either way, he certainly made an impact.

After his last, astonishing lecture in Rio on 8 December 1929, in which he presented his radical proposals for redesigning not just Rio but São Paulo and Montevideo as well, Le Corbusier sailed for Europe. During the voyage he wrote up his lectures, added an "American Prologue," and published them—together with the drawings with which he had illustrated his presentations—as *Précisions sur un état présent de l'architecture et de l'urbanisme* in Paris in 1930.²⁵ His earlier writings had been in circulation in Brazil for several years before his visit, and we can be certain that this new book would quickly have found its way to Rio and São Paulo.²⁶ Costa revised his opinions, and in 1951 he recalled how between 1931 and 1935 the little purist stronghold of those interested in the technical and expressive renewal of architecture had been passionately interested in the work of Gropius, Mies van der Rohe, and, above all, Le Corbusier, whose writings they studied in minute detail.²⁷ The wider community of Brazilian modernists, including Burle Marx, were sympathetic to Le Corbusier's impatient rejection of all that was old and stuffy, pretentious and academic, and indeed they would surely have enjoyed finding some of their own ideas cited in the prologue to *Précisions*, a point to which we shall return. They were ready to learn from his observations of their country, but they would also have been alert to his prejudices and preconceptions, as where, in a wonderful example of the double vision typical of European explorers and colonizers, he imagines the "first settlers" in Argentina on the "hitherto unexplored plain" of Buenos Aires, which is nevertheless peopled with "completely hostile Indians everywhere."²⁸

For present purposes, however, it is Le Corbusier's remarks about the South American landscape and about gardens that are of particular interest. At one point in the "American Prologue," in typically forthright manner, he remarks on the question of the appropriate type of modern garden, especially in relation to a city like Rio:

Tell me if it is still reasonable to adorn cities with embroidered flower beds, when contemporary man is so sensitive to spreading lawns, to a tree whose living scrollwork speaks to his heart? One evening in Rio I saw a miserable little park with beds of shaved lawn, cut up into squares with rounded corners like Louis XVI woodwork and efforts at 1925-style embroideries. . . . I felt strongly then what the academic mummy was.²⁹

This sort of passage would have stung local cariocan pride, while at the same time those interested in issues of moder-

nity and nationalism (and it would largely be they who were reading *Précisions*) would have recognized its force even if the alternative proposed—spreading lawns with occasional monumental trees—seemed almost as alien. In his theoretical writings, Le Corbusier repeatedly stresses the need for greenery, for trees and vegetation to alleviate the plain, flat surfaces of buildings and the inertness of the materials, and to create a pleasant, healthy environment, but his references are all to an essentially man-made picturesque landscape with trees (nonspecific), grass, and sometimes flowers, rather than artful gardens, something vaguely natural but definitely tamed and unthreatening.³⁰

On the other hand, he was very excited by the untamed natural landscape of South America, particularly the obviously tropical. While in Argentina he had been invited to join the inaugural flight of the South American Aviation Company from Buenos Aires to Asunción in Paraguay. He was enchanted, and—again in the prologue—he describes the trip in detail, with lyrical images of the landscape below, especially the sinuous waters of the Paraná and Paraguay Rivers.³¹ He loved flying and believed it could reveal "principles of organization which have previously remained hidden, just as the microscope had done."³² Characteristically, therefore, as well as marveling at the patterns of water and land, Le Corbusier uses his experience of flying over the confluence of these vast rivers to develop a philosophical theory:

The course of these rivers, in these endless flat plains, demonstrates peacefully the inevitable consequences of the law of physics; it is the law of the steepest gradient, and then, if everything becomes really flat, the affecting theorem of the meander. I say theorem because the meander resulting from erosion is a phenomenon of cyclical development absolutely similar to creative thinking, to human intervention. Following the outlines of a meander from above, I understood the difficulties met in human affairs, the dead ends in which they get stuck and the apparently miraculous solutions that suddenly resolve apparently inextricable situations.³³

Le Corbusier first used the image in Argentina in his lecture of 14 October, where it served to preface his radical suggestions for redesigning the entire city of Buenos Aires. He sketched *la loi du Méandre* (Figure 8) to illustrate the way both rivers and ideas get thrown off course so that "the straight line has become sinuous; the idea has acquired incidents."

Soon, the solution has become frightfully complicated, it is a paradox. The loops of the meander have made something like figure eights, and that's stupid. Suddenly, at the most desper-

ate moment, there they are touching at the outermost point of their curves! Miracle! The river runs straight! Thus a pure idea has burst forth, a solution has appeared. . . . Lengths of the old meander remain, inert, unused, marshy, stagnant.³⁴

This is a typically Le Corbusian image: straight lines over curves, clear, new thinking over old confusions, and it opens the way for his argument that what is needed in Buenos Aires is a completely new city plan (his plan) rather than the “thousand and one *small* solutions.”³⁵

He is delighted with the metaphor, and it recurs as a refrain throughout *Précisions*: “The abscess is pierced, the way is clear straight ahead. It is the lesson of the meander”;³⁶ “. . . only a remaking of morality [can] break the incoherent loops of the meanders of an outworn civilization”;³⁷ and once again “. . . the new means of the machine age [can] undo the terrible rings of the meander.”³⁸ As Le Corbusier uses the meander, it stands for the old, the rotten, the complex, the irrational as against the new, clean, simple, modern, rational, and therefore human. In the prologue he explains why he chose to use it:

I have baptized this phenomenon *the law of the meander*, and in the course of my lectures, at São Paulo and at Rio, I used this miraculous symbol to introduce my propositions for reforms in city planning or architecture, to base them on nature in a situation where I felt the public might accuse me of charlatanism.³⁹

He means of course the laws, not the forms, of nature.

But to a South American reading *Précisions*, is it not possible that this repeated stress on the awfulness of the

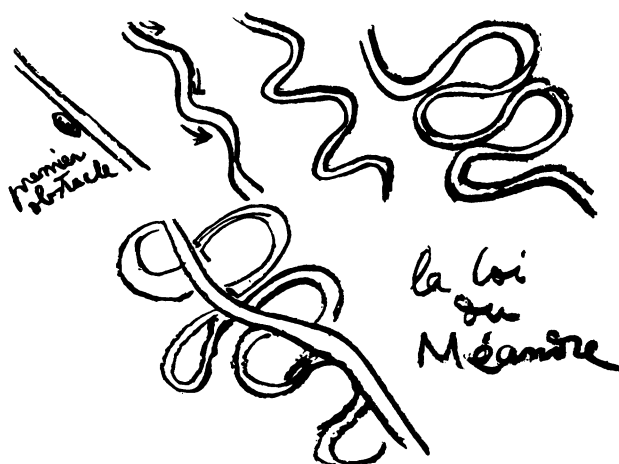


Figure 8 Le Corbusier, “The Law of the Meander.” From Le Corbusier, *Precisions on the Present State of Architecture and City Planning* (Cambridge, Mass., 1991), fig. 135

meander would begin to grate, derived as the theory is from the natural landscape of his own tropical wetlands? For one thing, the metaphor does not stand up to scrutiny. There is no neat surgical break in the natural landscape between old and new: as the river cuts through at one point it will be simultaneously developing new meanders elsewhere. Also, unlike in the case of the topographical meander, where it is the same river that both creates and breaks the loops, in Le Corbusier’s theoretical version it is a new idea that cuts through the tangle of previous ideas, or, more precisely, Le Corbusier’s own ideas break through the urban muddles created by the South Americans in their cities. As he puts it, “I attempted the conquest of America by implacable reasoning.”⁴⁰ It is he, with his all-conquering vision, his powerful arguments, his great schemes and proposals, who can break through the terrible loops, pierce the abscess. And finally, and perhaps most obviously, given the Brazilian modernists’ enthusiasm for all those “barbaric” complexities and paradoxes of their country, for all those things that Europeans found so disturbing, so alien, so frightful, might not the meander as excoriated by Le Corbusier have seemed just such a feature? And had not Le Corbusier himself, in his sarcastic remarks about a formal garden in Rio de Janeiro, opened the way for a reclamation of Brazil’s own landscape? If the French formal garden was inappropriate to Rio de Janeiro, so too were the spreading lawns that Le Corbusier had suggested as a more modern alternative.

Burle Marx and Le Corbusier: Meanders and Amoebas

To return to the MES building, where these various threads come together, where Burle Marx’s distinctively tropical garden design first emerges. The question of the authorship of the building is complex, made more so by architect-as-hero biographies of the main contenders for the title, Le Corbusier and Oscar Niemeyer.⁴¹ Le Corbusier is reported to have said on this issue that the figures on his sketch of January 1937 symbolized their relative status: the gigantic *Man of Brazil* statue representing himself, with Niemeyer on the same scale of importance as the tiny pedestrians (Figure 9).⁴² This anecdote probably dates from a later period, when Le Corbusier was embittered at his lack of recognition, but he was never one to mince his words nor was he an easy man to work with. Niemeyer and the rest of the Brazilian team were certainly deeply impressed and influenced by Le Corbusier, but the juxtaposition of their youthful ambitions with the arrogance of the famous foreigner must have created tensions. He argued with the authorities before, during, and after his visit about his role and his remunera-

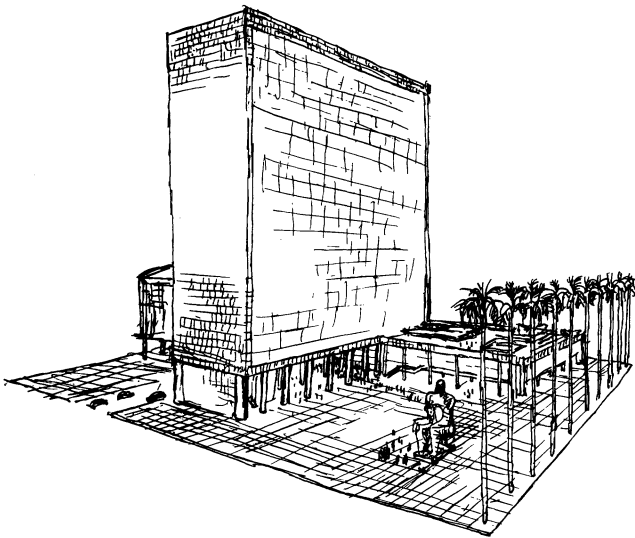


Figure 9 Le Corbusier, sketch for the MES building, 1936/37. From *Le Corbusier and Pierre Jeanneret, The Complete Works, 1934–1938*, ed. Max Bill, vol. 3, p. 81

tion. He chose to ignore the downtown site that had been earmarked for the ministry and designed a building for another location overlooking the sea that he considered more fitting; he continued to argue the case after his return to Paris, furious that the Brazilians would not accept his recommendation.⁴³ In 1955 Oscar Niemeyer summed up the position in carefully chosen words: “On this occasion [1936] the Brazilian architectural movement, led by our dear master Lúcio Costa, still had a number of deficiencies and limitations, which [Le Corbusier’s] presence allowed to clarify and eliminate, giving it the liberty and the creative force it needed.”⁴⁴ Niemeyer establishes a distance between Le Corbusier and the Brazilians, leaving open the question of what exactly it was about his presence that gave them their liberty.

Nevertheless, whether or not Le Corbusier was personally responsible for the design, the finished building does incorporate all of his “Five points of a new architecture”:⁴⁵ it is raised above street level on pilotis; the independent frame structure allows for the free plan and the free façade; and it has ribbon windows and roof gardens. Le Corbusier also suggested the inclusion of local materials: colonial-style blue-and-white glazed tiles, or *azulejos*, as a wall covering, and local pink granite skin on the pilotis.⁴⁶ In a newspaper interview about the ministry building, when told that the Brazilian public were divided between the modern style and a style with historical or regional significance, Le Corbusier characteristically replied that it was not a question of style

but of architecture, that architecture always makes use of the techniques of the day and of local resources, in relation to both the materials “and the particularities of the landscape, the natural environment and the climate.”⁴⁷ As far as the design of the MES gardens is concerned, however, he had little direct input. In fact, despite his frequently expressed justification of pilotis as a way of freeing up urban land for green space, and his enthusiasm for flat roofs as ideally suited to gardens, cafés, and relaxation, Le Corbusier’s sketch for the MES building, based on the revised plans sent to him in Paris by the Brazilian architectural team, suggests little of this (see Figure 9). He sets it in a paved square alleviated by a single row of imperial palms (predictably, perhaps, he liked Rio’s “vertical palm trees, with smooth, mathematically curved trunks”),⁴⁸ while the roof of the exhibition wing is decorated with a bit of geometric patterning that could be parterres or box hedges. Neither seems to go far toward his aim of satisfying “the deepest human desires by once more covering with verdure the urban landscape and setting Nature in the midst of our labor.”⁴⁹

Yet the gardens are a crucial part of the success—and the fame—of this building. Although Roberto Burle Marx was working in Recife during the planning period of the MES building, he returned frequently to Rio de Janeiro and met Le Corbusier during his consultative visit of 1936.⁵⁰ In 1938 Lúcio Costa invited him to join the project.⁵¹ As head of the Brazilian architectural team, Costa probably played a much greater part in all design decisions than he has chosen to admit. He was what we would now call a facilitator, a conduit for ideas, someone with a talent for matching people with projects, a modernist who valued the great architectural masterpieces of the colonial past, who understood the contradictions of “the jungle and the school,” and who had read Le Corbusier very closely.⁵² He was fully capable of picking up both the intended and unintended implications in *Précisions*. The MES building was to include gardens. Le Corbusier’s sketch of a row of palms was hardly adequate; the despised “embroidered flower beds” were definitely out, but so too—in a downtown site in the tropics—were the spreading lawns that Le Corbusier had suggested as an alternative. Costa recognized in Burle Marx a painter who understood design, and a gardener who understood plants, someone capable of creating something as original, as Brazilian, and as modern as the architecture.

Burle Marx had three areas to work on. He designed the gardens of the street-level plaza, where the beds full of shade-tolerant plants extend like pools of liquid underneath the building, so that the pilotis rising up among them are more like architectural tree trunks than a classical column



Figure 10 Roberto Burle Marx, gardens of the street-level plaza of the MES building, Rio de Janeiro. Photograph by Marcel Gautherot, c. 1950

could ever be (Figure 10). Out in the plaza, he included that most Brazilian of trees, the Pau-Brasil, after which Andrade had named his modernist manifesto in 1924. He laid out the top of the main sixteen-story block with a sequence of raised beds, again in liquid, amoebic forms, although here the scope was limited by the rooftop dining rooms and the towers housing the lifts and water tanks. Third and best known, there was the roof of the exhibition wing, which provided him with a complete, discrete rectangular canvas on which to work. As we have seen, from the roof and offices of the main block this garden can be read on three levels: as modern abstract painting, as primal amoebic forms of life, and as a portion of tropical rain forest. Burle Marx said that, although he had used them before, it was at the ministry that his curvilinear forms first emerged most clearly.⁵³ He did not have firsthand knowledge of Brazil's rain forest at this time—he did not go to the Amazon until 1950—although he would certainly have known it from photographs. To use it as the inspiration for garden design, however, was a radical innovation. Is it too far-fetched to suggest that it could have been suggested by Le Corbusier's vivid, emotive prose? At one level Burle Marx's design can almost be read as an illustration of Le Corbusier's descriptions of the great estuarine rivers of South America:

The water is thrown to the left, it digs into the bank; from there, by reaction, it is thrown back to the right. Then the straight line disappears. To the left, to the right, always deeper, the water bites, hollows, cuts away.⁵⁴

But as we have seen, Le Corbusier's observations of the meanders became the basis for a theory about the inevitability of change and progress toward the goal of rationality, purity, and modernity. It is hard not to see the meandering anarchy of Burle Marx's design as a challenge to this, a deliberate celebration of the irrational meander coexisting with the straight lines of Le Corbusian modernity. The contrast was not missed by contemporaries. The Brazilian writer José Lins do Rêgo saw Burle Marx's gardens as rescuing Brazilian architecture from Le Corbusier's formalism, and celebrated what he saw as their explicitly uncivilized format.⁵⁵ The shifting sense of scale that the observer experiences in viewing the MES exhibition garden from above is also already there in *Précisions*: from the airplane Le Corbusier had seen, with horror and fascination, a likeness to the "frightful mold" that grew on his mother's jam pots. "The rainforest, the exuberant vegetation of the meanders, are the molds of our earth."⁵⁶ Burle Marx's garden implies both microscopic organisms and full-size geo-



Figure 11 MES building, Rio de Janeiro, south elevation, with garden on roof of exhibition wing (foreground). Photograph by Marcel Gautherot, c. 1950

graphical features, but it is in effect somewhere in between. Its luscious tropical plants belong to the untamed wilderness of the sort Le Corbusier, like generations of European explorers before him, found so disturbing (“the forest is silent, motionless, thick, impenetrable, perhaps menacing”)⁵⁷ but which Brazilian modernists were learning to appreciate and value precisely because it was Brazilian, and because it aroused fear in Europeans.

Elsewhere in *Précisions* Le Corbusier had spelled out how Buenos Aires was a city of mistakes, where, although it was sandwiched between the sea, the sky, and the vast pampa, none of this—not even much of the sky—was visible from within the city itself.⁵⁸ In Rio, before the city grew up around it, the MES building was very different: as well as incorporating its own miniature landscape gardens, it also offered unimpeded views of the very different larger-than-life landscape of the beaches, bays, and sheer rocky outcrops of Rio, and a commentator in 1947 also noticed the way in which from ground level the exhibition roof garden had the effect of bringing the sky closer to the city (Figure 11):

As for the roof garden of the Ministerio, it has now grown so high that, looking up at the building from below, you have the mysterious feeling of some jungle rising fantastically into the sky and bringing the rainclouds down to the level of the two blue funnels which enclose the lift shafts and the water cisterns of what is still the most beautiful skyscraper in Rio.⁵⁹

Thus, a little bit of jungle grows in the heart of the ministry designed to oversee the modernization of Brazil by means of major social programs in health and education; “the jungle and the school” of the Pau-Brasil Manifesto are realized in the center of the capital of modern Brazil.

Cannibalizing Le Corbusier

In 1928 Oswald de Andrade published the famous Anthropophagite manifesto proposing (in aphoristic staccato fashion not dissimilar to Le Corbusier’s style of writing) that Brazil’s strength lay in feeding on European culture. “Anthropophagy. Absorption of the sacred enemy. In order

to transform him into totem.”⁶⁰ Interestingly, writing the prologue to *Précisions* as he sailed back to France the following year, Le Corbusier included a version of this idea:

The youth of São Paulo have explained their thesis to me: we are “cannibals”. Cannibalism is not a gluttony; it is an esoteric rite, a communion with the best forces. The meal was very light; we were a hundred or five hundred eating the flesh of one captured warrior. This warrior was brave, we assimilated his qualities; and more so, this warrior had in turn eaten the flesh of one’s tribe. Thus, in eating him one assimilated the very flesh of one’s ancestors.⁶¹

Were the youth of São Paulo thinking of Le Corbusier as the captured warrior as they spoke? He saw the countries of South America from his own neocolonial perspective, as places where he could put his theories into practice more easily than in Europe. But, although he was undoubtedly very influential (indeed, it is hard to imagine modern Brazilian architecture, especially Brasília, without him), the Brazilians were not simply passive consumers of his ideas any more than they were of the ideas of other influential Europeans. Le Corbusier’s visits occurred during a period when Brazilians were intensely aware of their traditional cultural dependency. The cannibalism metaphor provided a strategy, an intellectual framework for countering this, whereby the consumption of the culture of contemporary European invaders would be deliberate and selective, even aggressive. It is impossible to imagine that the “youth of São Paulo” who explained this to Le Corbusier did not see him as precisely the sort of European cultural warrior off whom they could profitably feed, whose observations as a foreigner discovering their land could provide nourishment from their own ancestral culture. Le Corbusier himself, in justifying his decision to lecture in Rio in 1929, declared that “ideas belong to everybody. One must choose between two solutions: give ideas or take ideas. In fact, we do one and the other; we give our ideas willingly, we use, we recuperate, we exploit for more special uses ideas that are common in every field.”⁶² Le Corbusier came to South America with a set of ideas; while there he elaborated and adapted them and developed new theories on the basis of what he found. He was a stimulating and seductive speaker. He validated the preexisting nationalist desire to incorporate native vegetation into urban spaces. He drew attention to the forms of the tropical wetlands from an outsider’s perspective, as a landscape that was both horrifying and fascinating, and then used this landscape as the basis of a theorem to justify his radical proposals for their cities, for the “significant meanders” and “complicated network of

wormlike viscera” of the São Paulo city plan, for example.⁶³ Brazilian radicals were predisposed to challenge foreigners’ stereotypical views of their country and then to cannibalize such ideas for their own purposes.

In Roberto Burle Marx’s lexicon, the riverine iconography of the gardens of the MES building in Rio de Janeiro is more explicit than any of his earlier and indeed most of his later work. In the street-level plaza and the roof of the main block, the gardens form curving promontories and small, sinuous islands in the broader expanse of the terrace/water; on the roof of the exhibition block, the path/river meanders back and forth between relatively larger areas of garden. It is hard not to see these gardens as a deliberate ironic play on Le Corbusier and his theories, as a feast on the flesh of the warrior. Through Burle Marx’s gardens, Brazil reclaimed its own flora and topography to embrace the contradictions of “barbaric but ours.”⁶⁴

Notes

I should like to thank Alice T. Friedman for all her help, encouragement, and friendship.

1. Le Corbusier, *Precisions on the Present State of Architecture and City Planning*, trans. Edith Schreiber Aujame (Cambridge, Mass., 1991), 236. Originally published as *Précisions sur un état présent de l’architecture et de l’urbanisme* (Paris, 1930).
2. *Ibid.* (1991), 245, figs. 225, 226.
3. The black-and-white ripple is not one of Burle Marx’s inventions, although he often uses it. Those beside Copacabana beach can be seen in photographs by G. E. Kidder Smith of 1942 for the influential 1943 MoMA exhibition (Philip Goodwin, *Brazil Builds* [New York, 1943], 27) and so predate Burle Marx’s work. The same design was used in front of the Opera House in Manaus in the late nineteenth century (Goodwin, *Brazil Builds*, 24) and has its origins in Portugal. See also Paulo Herkenhoff, “The Jungle in Brazilian Modern Design,” in *The Journal of Decorative and Propaganda Arts 1875–1945. Brazil Theme Issue*, 1995, 239.
4. William H. Adams, *Roberto Burle Marx. The Unnatural Art of the Garden* (New York, 1991).
5. For example, Fernando Cocchiarale and Anna Bella Geiger, eds., *Abstracionismo geométrico e informal*, Funarte, Temas e Debates 5 (Rio de Janeiro, 1987), makes no mention of his work.
6. Ministério da Educação e Saúde (MES). After the ministry was transferred to Brasília in 1960, the building was renamed the Palácio Capanema, but the architectural literature still uses the designation “MES building,” hence the present usage.
7. Pietro Maria Bardi, *The Tropical Gardens of Burle Marx* (New York, 1964), 14.
8. In interview with Damián Bayón, 1977, reproduced in Alberto Xavier, ed., *Arquitetura Moderna Brasileira: Depoimento de uma geração* (São Paulo, 1987), 306; also in interview with Conrad Hamerman, “Roberto Burle Marx: The Last Interview,” in *The Journal of Decorative and Propaganda Arts 1875–1945. Brazil Theme Issue*, 1995, 164.
9. In *Tristes Tropiques* Claude Lévi-Strauss observes that the feudal landlords of São Paulo invited people like him to come to Brazil “partly so that

we could give them a cultural front and partly so that we could provide them with entertainment" (Harmondsworth, 1978), 21.

10. First published in *Correio da Manhã*, Rio de Janeiro, 18 March 1924; reproduced in Dawn Ades, *Art in Latin America: The Modern Era, 1820–1980* (London, 1989), 310–311. Pau-Brasil, brazilwood, was exploited by the first European transatlantic traders.

11. Ades, *Art in Latin America*, 311.

12. Aracy Amaral, *Társila: sua obra e seu tempo* (São Paulo, 1975).

13. "Pelo nosso clima, pela nossa natureza e costumes, as nossas cidades devem ter um caráter diferente das da Europa. Creio que a nossa florescente vegetação e todas as nossas inigualáveis belezas naturais podem e devem sugerir aos nossos artistas alguma coisa de original dando às nossas cidades uma graça de vivacidade e de cores, única no mundo." Reproduced in Xavier, ed., *Arquitetura Moderna Brasileira*, 22–23; first published in *O Estado do São Paulo*, 15 August 1925. Translation by author.

14. The Schwarz house no longer exists. The first modernist house in Brazil, Warchavchik's own house in São Paulo of 1927/28 had a garden of tropical plants designed by his wife, Mínia Klabin. Yves Bruand, *Arquitetura contemporânea no Brasil* (São Paulo, 1981), 67 n. 31.

15. Several of these are reproduced in Adams, *Unnatural Art*.

16. Claude Vincent, "The modern garden in Brazil," *Architectural Review*, May 1947, 172; also in interview with Hamerman, "Last Interview," 168–169.

17. The inspiration also came from Germany: "[This garden] was based on a cactus garden I had seen in Germany. The cacti corresponded to our flora of the *caatinga*, the arid region of our northeast, made famous . . . in the book *Os Sertões*," published in English as *Rebellion in the Backlands* (Chicago, 1944). Hamerman, "Last Interview," 167.

18. "Para mim, o jardim deve possuir qualidades didáticas. A partir do jardim, pode-se distribuir muitos ensinamentos, estimulando o povo a viver melhor." In interview with Damián Bayón, in Xavier, ed., *Arquitetura Moderna Brasileira*, 312. Translation by author.

19. There are strong echoes of Arp's floating forms of the early 1930s in many of Burle Marx's designs, and the ambiguity of the relationship between background and foreground is also common to both. They were also both interested in the problematic relationship between modernism/rationalism/geometry on the one hand, and nature on the other. Burle Marx would have known of Arp's work; it would be interesting to know if he had contact with Arp during his stay in Europe in 1928/29.

20. David Underwood, *Oscar Niemeyer and the Architecture of Brazil* (New York, 1994), 27; see also Bruand, *Arquitetura contemporânea*, 82–89.

21. Aracy Amaral, comp., *Arte y arquitectura del modernismo Brasileño (1917–1930)* (Caracas, 1978), 159.

22. *Movimento Brasileiro* 12 (1929), quoted in Pietro Maria Bardi, *Lembrança de Le Corbusier* (São Paulo, 1984), 52; Lúcio Costa, quoted in Marcos Sá Corrêa, *Oscar Niemeyer* (Rio de Janeiro, 1996), 94.

23. *Diário Nacional*, 12 November 1929, reprinted in Amaral, *Arte y arquitectura*, 109.

24. Bardi, *Lembrança*, 6.

25. See n. 1.

26. In the early 1920s, Mário de Andrade had subscribed to Le Corbusier's magazine *L'Esprit Nouveau*. *Vers une architecture* of 1923 was advertised in the magazine *A Casa* in 1927 (María Marta Camisassa, "Desvelando alguns mitos: As revistas modernistas e a arquitetura moderna," in L. A. Fernandes Cardoso and O. Fernandes de Oliveira, eds., (Re)*Discutindo o Modernismo. Universalidade e Diversidade do Movimento Moderno em Arquitetura e Urbanismo no Brasil* [Salvador Bahia, 1997], 130, 135), although the architect Flavio de Carvalho had already come across it in 1926 (Haifa y Sabbag, "Flavio de Carvalho, uma obra aberta," in *Arquitetura e Urbanismo*,

June/July 1987, 39); and during Le Corbusier's visit to Rio in 1929 his work and ideas were discussed in the November and December issues of *Movimento Brasileiro*, the latter issue carrying one of the sketches of his plan for Rio on the cover (Camisassa, "Desvelando alguns mitos," 133).

27. "Depoimento de um arquiteto carioca," *Correio da Manhã*, Rio de Janeiro, 15 June 1951, reprinted in Xavier, ed., *Arquitetura Moderna Brasileira*, 88.

28. Le Corbusier, *Precisions* (1991), 4.

29. *Ibid.*, 11.

30. In his brief account of the evolution of architecture in *Towards a New Architecture* (1923) he describes the way in which primitive man had first to take control of nature: "For, all around him, the forest is in disorder with its creepers, its briars and the tree-trunks which impede him and paralyse his efforts"; quoted from reprint ed. (New York, 1986), 71.

31. Le Corbusier, *Precisions* (1991), 4; Lévi-Strauss flew over the same region in the mid-1930s and was also moved to provide a marvelous description in *Tristes Tropiques*, 208.

32. Charles Jenks, *Le Corbusier and the Tragic View of Architecture* (Harmondsworth, 1987), 125.

33. Le Corbusier, *Precisions* (1991), 4–5.

34. *Ibid.*, 142–143, fig. 135.

35. *Ibid.*, 141.

36. *Ibid.*, 142. It is curious how the negative connotations of Le Corbusier's Law of the Meander have been overlooked by scholars of Brazilian architecture. Both Underwood and Harris link it to a shift in Le Corbusier's aesthetic away from the pure geometry of the 1920s to his later, more expressive style, but this is to fail to distinguish between a curve (acceptable, especially after his visit to Rio) and a meander (unacceptable). Harris also confuses Le Corbusier's "law of the meander" flight to Paraguay at the beginning of his South American tour with another flight he made over Rio shortly before his departure. It was the latter that inspired the innovative—and curvaceous—plan for Rio. See: David Underwood, *Oscar Niemeyer and Brazilian Free-Form Modernism* (New York, 1994), 24–26; Elizabeth Harris, *Le Corbusier: Riscos Brasileiros* (São Paulo, 1987), 33. I can see no evidence to support Pérez Oyarzún's suggestion that the Law of the Meander provided Le Corbusier with the basis for an argument about the "inevitable rise of the 'green city' as the expression of the age"; see Fernando Pérez Oyarzún, ed., *Le Corbusier y Sudamérica: Viajes y Proyectos* (Santiago de Chile, 1991), 39.

37. Le Corbusier, *Precisions* (1991), 17.

38. *Ibid.*, 154.

39. *Ibid.*, 5.

40. *Ibid.*, 18.

41. Compare, for example, David Underwood, *Oscar Niemeyer and the Architecture of Brazil* (New York, 1994), 20–29, who cites Niemeyer's own disclaimers while wanting to credit him with the lion's share, with Robert Furneaux Jordan who sees it as pure Le Corbusier, *Le Corbusier* (London, 1972), 69–72. Bruand, *Arquitetura contemporânea*, 81–93, while acknowledging the influence of Le Corbusier, presents it as a genuine piece of teamwork. Costa asserted that the whole thing from first sketch to final conclusion was achieved by the Brazilians without any assistance from "the master" ("Depoimento de um arquiteto carioca," in Xavier, ed., *Arquitetura Moderna Brasileira*, 89), but the essay by Cecília Rodríguez, Margareth Da Silva, Romeo Veriano, and Vasco Caldeira, "El Viaje de 1936," in Pérez Oyarzún, ed., *Le Corbusier y Sudamérica*, 42–49, suggests close cooperation.

42. Furneaux Jordan, *Le Corbusier*, 70, note. Furthermore, Jordan, an ardent supporter of Le Corbusier, says that the latter claimed responsibility for the drawing of the sculpture and credited Niemeyer with adding the little figures.

43. This is well documented in "El Viaje de 1936," in Pérez Oyarzún, ed., *Le Corbusier y Sudamérica*, 42–49.

44. “Nessa ocasião, o movimento arquitetônico brasileiro, liderado pelo nosso caro mestre Lúcio Costa, apresenta ainda uma série de deficiências e limitações, que a sua presença permitiu esclarecer e eliminar, dando-lhe a liberdade e a força criadora de que necessitava.” *Modulo*, 1, Rio de Janeiro, 3 March 1955, rep. in Xavier, ed., *Arquitetura Moderna Brasileira*, 330. Translation by author.
45. First published in Paris in 1926; Ulrich Conrads, ed., *Programmes and Manifestoes on 20th-century Architecture* (London, 1970), 99–101.
46. Bruand, *Arquitetura contemporânea*, 91; Maria Marta Camisassa, “Interpretações nacionalistas do *International Style*,” in Fernandes Cardoso and O. Fernandes de Oliveira, eds., *(Re)Discutindo o Modernismo*, 84. Costa in interview, 1987, in Lúcio Costa, *Registro de uma Vivência* (São Paulo, 1997), 146.
47. “. . . as particularidades das paisagens, da natureza, e do clima,” Bardi, *Lembrança*, 78. Le Corbusier was always flexible in his opinions, however, and in *Précisions* he had firmly declared that with new means of communication regional and national differences were things of the past (1991), 26–27.
48. Le Corbusier, *Precisions* (1991), 233.
49. *The City of Tomorrow and its Planning* (1929; reprint ed., New York, 1987), 78.
50. Sima Eliovson, *The Gardens of Roberto Burle Marx* (New York, 1991), 41. During Le Corbusier’s last visit to Brazil in 1962, one of his few social visits was to lunch with Burle Marx in his home in Jacarepaguá; see Bardi, *Lembrança*, 113.
51. Burle Marx was working as an assistant to Portinari on the murals in Capanema’s office when Costa first approached him about the gardens; see Hamerman, “Last Interview,” 170.
52. In January 1936, six months before Le Corbusier came to advise on the MES building, Costa published “Razões da nova arquitetura,” an appeal for a pure no-frills modern architecture that is deeply indebted to Le Corbusier; reprinted in Xavier, ed., *Arquitetura Moderna Brasileira*, 26–43. See also M. M. Camisassa, “Interpretações nacionalistas.”
53. Hamerman, “Last Interview,” 168, 171.
54. Le Corbusier, *Precisions* (1991), 142.
55. José Lins do Rêgo, “L’homme et le paysage,” *L’Architecture d’Aujourd’hui*, August 1952, 12.
56. Le Corbusier, *Precisions* (1991), 6.
57. *Ibid.*, 13.
58. *Ibid.*, 23–24.
59. Claude Vincent, “The modern garden in Brazil,” *Architectural Review*, May 1947, 172. When I was last there in 1995 only a few sad fragments of this survived.
60. Ades, *Art in Latin America*, 313.
61. Le Corbusier, *Precisions* (1991), 6.
62. *Ibid.*, 237.
63. Le Corbusier, *Precisions* (1991), 239.
64. Carlos Eduardo Díaz Comas interprets the MES architecture as a cannibalization of Le Corbusier’s ideas; see “Prototipo, monumento, un ministerio, el ministerio,” in Pérez Oyarzún, ed., *Le Corbusier y Sudamérica*, 127.

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