

Challenging the Hierarchies of the City: Oscar Niemeyer's Mid-Twentieth-Century Residential Buildings

Styliane Philippou
styliane@philippou.net
+44 20 7619 0045

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Abstract

This paper discusses the ways in which Oscar Niemeyer's mid-twentieth-century residential buildings for the rapidly growing Brazilian cities challenged prevailing assumptions about the hierarchies of the city, and the profoundly patriarchal, white-dominated Brazilian society.

The aesthetics of randomness and utilitarian simplicity of Niemeyer's first house for himself (Rio de Janeiro, 1942) steered clear of any romanticisation of poverty and social marginalisation, but posited the peripheral, urban popular Black architecture of the *morros* as a legitimate source of inspiration for modern Brazilian residential architecture.

At a time of explosive urban growth in Latin American cities, suburban developments allured those who could afford it to flee the city and retreat in suburbia. Niemeyer's high density residential environment (Copan Apartment Building, 1951, São Paulo), right in the centre Brazil's industrial metropolis, configured a site of resistance to urban flight and the 'bourgeois utopia' of the North American suburban, picturesque enclaves insulated from the workplace. The Copan's irrational, feminine curves contrasted sharply with the 'cold, hard, unornamental, technical image' (Ockman) of the contemporaneous New York City Lever House, typical of the North American corporate capitalist landscape. At a time when Taylorism-influenced zoning was promoted as the solution to all urban problems, the Copan emphatically positioned in the city centre the peripheral realm of domestic, tropical, feminine curves, challenging prevailing images of the virile city of male business and phallic, stifling skyscrapers. Its sensual form decidedly invaded the urban core of Latin America's premier industrial and financial centre, contesting the dichotomy between the private, feminine world of home and pleasure, and the public, masculine world of work and power, articulating the possibility of a rethinking of the gender polarities of the North American city.

The entirely free form of the twelve-storey Niemeyer Apartment Building (1954-60), in one of the most privileged spots of Belo Horizonte, reflected its architect's defiant rejection of the ideological and formal constraints of orthodox Modernism, in favour of an eroticised curvaceous residential world of luxury and sensual pleasure. Anchoring this private domestic world in the heart of the city, Niemeyer questioned the image of the civic centre as stable and authoritarian, in favour of dynamism, elasticity and malleability. This paper argues that his violations of Modernist rectangularity and rigidity of form were not achieved only through the feminisation of Cartesian geometry, but also through its Africanisation. They may be interpreted as attempts to graft on the Brazilian urban tissue agents of transformation, which both extend to architecture the integration of symbolic African elements of Brazilian national cultural practice, and subvert the dominance of the white presence in the Brazilian bourgeois public and civic space.

Niemeyer's mid-twentieth-century residential architecture for the Brazilian city emerged out of a nationalist project of representation of an imagined coherent *mestiço* identity. Yet, at its best moments, it proposed a restructuring of representation in more egalitarian ways.

Rapid Industrial and Urban Growth in Mid-Twentieth-Century Brazil

In 1928, Cassiano Ricardo's poem *Martim Cereré* saluted Brazil's urban, industrial future. In 1929, two films, Adalberto Kemeny's and Rudolf Rex Lustig's *São Paulo, A sinfonia da metrópole* (*São Paulo: A Symphony of a Metropolis*) and José Medina's *Fragmentos da vida* (*Fragments of Life*, based on a tale by the American O. Henry), celebrated the growing city, its skyscrapers, elevators and industrial parks, 'defying the clouds, bearing in that uncontrolled urge the sweat of humble workers' (quoted in Bernadet, 2000; p.555). In the 1930s and 1940s, in Brazil, accelerated industrialisation and economic diversification, population explosion and internal migration brought rapid urban growth, and an expansion of the industrial middle class and the urban proletariat. The locus of power shifted from the landed gentry to the urban industrial bourgeoisie.

Between 1929 and 1937, industrial output increased by nearly 50%, and in 1938 it was more than double that of agriculture. But Brazil was still a neo-colonial debtor nation. Industrial self-sufficiency and protection of the country's natural resources were seen as necessary in order to guarantee Brazil's sovereignty, economic independence and achievement of world-power status. From 1935, European rearmament demands were high, and Brazilian production of iron ore quintupled in the 1940s. Latin America's first integrated steel complex, Volta Redonda, went into operation in 1946, on the site of a former coffee-plantation, in the Paraíba Valley, in the state of Rio de Janeiro, and roughly midway between the iron mines of Minas Gerais and the steel market of São Paulo. Although established with finance (credits of USD 45 million) and technical aid from Washington (in exchange for military cooperation during World War II), Vargas hailed the Volta Redonda steelworks 'as the symbol of Brazil's economic emancipation' (Wirth, 1970, p.1). With electrical power already in foreign hands, the nationalists rallied to the cry 'o petróleo é nosso!' (the oil is ours!), against the *entreguistas* who favoured modernisation with the help of international investment. Under Vargas's second administration (1951-54), Petrobrás (1953) was established as a state monopoly of all petroleum resources and their exploration.

Brazil's participation in World War II and nationalist campaigns to develop Brazilian-owned steel and petroleum industries fostered national unity, pride and confidence in the country's economic future. Economic nationalism inspired cultural nationalism. Almirante (Henrique Foreis Domingues), 'the most respected [nationalist] producer in Brazilian radio', who rallied Brazilians to the preservation of the nation's 'authentic' cultural traditions, and sought to curtail the impact of imported cultural innovations, particularly from the United States, proclaimed: 'Brazilians now have confidence in the things that other Brazilians produce. They are confident that our industry has completely surpassed that of foreign countries' (McCann, 1999; p.477). Despite rapid urban growth, in the 1950s, more than half of all Brazilians continued to live in the impoverished countryside; most of them were illiterate and therefore barred from direct participation in the political process. When they gravitated to the city, they joined the shadow economy, as domestic servants or street sellers, and lived in self-built shacks in the rapidly expanding, insalubrious *favelas* or *cortiços* (overcrowded inner city rented tenements typical of São Paulo). By 1957, the capital's *favelas* housed a quarter of its inhabitants.

Oscar Niemeyer's House in the Socially and Racially Segregated City

The concentration of production and surplus labour in mid-twentieth-century Brazilian cities strengthened the influence of the privileged, fast expanding middle class which included some second generation European immigrants, and the affluent urban elite, controlling commerce, banking and industry, usually linked to the old patriarchal *latifúndios*, and positioned at the top of the new social hierarchy. These high-income earners in the cities with the largest share of the national industry lived in fashionable, multi-storey apartment blocks which joined prestigious office blocks to quickly transform the skyline of Brazil's major urban centres. In *Fragmentos da vida*, there was an ironic discrepancy between the futuristic city described in the captions and that of contemporaneous reality projected on the screen. The 'progress and promise' of the former acquired concrete form in the next decades, when Brazilian cities were rapidly 'becoming full of skyscrapers, dotted with squares [characterised by] the refinement and taste of the inhabitants and their economic assertion' (quoted in Bernadet, 2000; p.555). As Oscar Niemeyer observed, however, the new structures of the Brazilian cities, including those by his own hand, 'reflect[ed also] the social disequilibrium of the country with a majority of its citizens living in the most miserable quarters' (Niemeyer, 1956; p.12). The high social and racial segregation of cities like Rio de Janeiro reached the silver screen with Nelson

Pereira dos Santos's first two realist features, *Rio 40 graus* (*Rio 40 Degrees*, 1955), banned by the Rio chief of police precisely for its 'negative' portrayal of the federal capital, and *Rio Zona Norte* (*Rio Northern Zone*, 1957). Ironically, the spatialisation of the federal capital's socio-economic inequities inverted the social hierarchy: the marginalised *favelas* on the hills look down on the privileged spaces of the rich Carioca cosmopolitans, in Rio's southern beaches (*zona sul*).

Niemeyer's own House on Carvalho de Azevedo Street (Fonte da Saudade, Rio de Janeiro, plans and historic photographs in Papadaki, 1950; pp.62-9) was designed in 1942 with no service entrance separate from the so-called 'social' or 'public' entrance, as it was (and still is) common practice in the houses of the Brazilian middle and upper classes, something that made it particularly difficult to sell the house few years later, as the present owner who bought the house from Niemeyer asserts. The entrance to the house is found at the end of the second flight of a ramp, well concealed from both street and garden, and typically uneventful. Once through the house door, and on into the living room to the left, the spartan, 'functional' Modernist interior is dominated by the intoxicating panorama of the lake and the mountains, through the continuous window along the southern façade.

Raised on pilotis, on a hill with a view across the Lagoa Rodrigo de Freitas, to the south, Niemeyer's version of the Corbusian Citrohan house, with its single-pitch, red-tiled roof projecting over the veranda, and wooden, bright yellow jalousies, recalls Le Corbusier's rhapsodic description of the houses of the black Carioca *favelados*, during his first Brazilian visit, in 1929. Built on a small site, the four levels of the house unfold along a slow-rising ramp which begins seemingly unsupported, by the bright yellow external wall of the small ground floor service area, affording plunging views of the lush, shaded garden and the lake beyond. The bright yellow wall mediates between the house and the garage with a curve which underscores its independence from the slender columns of the pilotis, while a low, smoothly undulating rubble wall marks the limit of the cool garden, a short flight of stairs below the entrance level.

The columns of the pilotis come in a variety of sections: circular around the garage and by the first flight of the ramp, square at the rear, north-western side of the house, and oval for the longest columns at the southern façade towards the lake. These four sturdiest, longest columns of the house appear to emerge through the thick vegetation, as if the tropical garden had always been there, and Niemeyer was careful to step only lightly in it, for fear of disturbing its natural equilibrium. To use Le Corbusier's words, at Fonte da Saudade, 'the natural ground remains, the poetry is intact' (Le Corbusier, 1991; p.49). The oval columns continue above the cantilevered balcony with much slimmer, square sections visible along the first floor eastern elevation, with the discrepancy most clearly displayed at the south-eastern corner of the house, where the oval column of the pilotis continues on the first floor with a square free-standing column at the corner of the covered terrace hollowed out of the first floor, along two-thirds of the west elevation. The dimensions of the columnar grid are equally variable in both directions, and there are deviations from the grid, which are not the result of structure or utility constraints. Most notably, the circular column of the pilotis at the north-western corner of the house appears randomly positioned away from the corner, farther along the rear northern elevation. The middle row of the pilotis starts with two columns near the street, which define the limits of the garage, and is then shifted to the outer side of the ramp, where the two circular columns which support the first flight rise at a small distance, concealing their structural role; one of these columns steps casually down on the steps to the garden.

Arrangements like this as well as the general apparent informality of the pilotis subvert the geometric clarity of the volume and the reading of a regular grid, contributing to an effect of lightness and spatial freedom. At the same time, the seemingly haphazard, spontaneous assembly of irregular structural elements, the unusually bright colours, and the pitched roof and cantilevered balcony negotiate an encounter between the sophisticated, self-conscious Modernist white cube and the Brazilian people's makeshift, fragile dwellings of necessity and deprivation, perched on the steep *morros* (literally hills, figuratively shantytowns or *favelas*) of Rio de Janeiro. One is tempted to read Niemeyer's hillside house as an attempt to sketch a vision of a *mestiço* architecture to suit the mythical, 'beautiful, wheat-coloured Brazil', celebrated in Ary Barroso's song 'Aquarela do Brasil' (1939), with which Niemeyer identifies, and to dispel the all-too-obvious and disturbing reality of asymmetrical relations, racial and socio-economic, which belies the cherished illusion.

In his typical autobiographical introduction (Niemeyer, 2000; p.6), Niemeyer begins by stressing his Brazilian-ness in accordance with the national ideology of ethnic amalgamation:

I shall start by remembering my origins. My name ought to be Oscar Ribeiro Soares or Oscar Ribeiro de Almeida de Niemeyer Soares [Filho], but the foreign name prevailed and I became known as Oscar Niemeyer. My ethnic roots are diverse, something I find particularly gratifying. Ribeiro and Soares are Portuguese names, Almeida is Arabic, and Niemeyer is German. Not to mention the blacks or Indians who, unknown to us, may also have been part of our family.

'I am [...] a mestizo', emphatically asserts Niemeyer, 'as mestizos are all my Brazilian brothers' (Niemeyer, 2004; p.134). Miscegenation is central to Niemeyer's self-definition. It has also played a central role in his architecture, which from the 1930s contributed to Brazil's promotion of its image as a successfully ethnically amalgamated nation.

In the 1930s, in Brazil, *mestiço* nationalism replaced earlier nationalist ideologies centring upon the supremacy of white colonial culture. Gilberto Freyre, the *pernambucano* sociologist responsible for the official version of Brazilian history and national ideology, established hybridity as the defining characteristic of Brazilian national identity and cultural practice, including architecture and landscape architecture. Not so long after the abolition of slavery, in 1888, Brazil's definition of her unique, hybrid national identity went hand-in-hand with the re-appraisal of the African heritage which was found living on, in the forms of twentieth-century Brazilian popular Black culture, on the *morros* of Rio de Janeiro (Philippou, 2005). Freyre's first two books, *Casa grande e senzala* (1933), literally translated as *The Big House and the Slave Quarters*, and *Sobrados e mucambos* (*The Mansions and the Shanties*, 1936), explored the development of the characteristics of Brazilian society and its transformations, from colonial times to the overthrow of the Brazilian Emperor (1889), on the basis of the metaphor of the house.

In 1943, *Casa grande e senzala* was published in English, with a title which reflected its romanticisation of the relations between *The Masters and the Slaves* in Brazil. *The Architectural Review's* 1944 special number on Brazil celebrated the country's 'miraculously effective' melting-pot and her mulatto artists, pronouncing Brazil, in 'this negation of colour and racial distinction [...] ahead of North America and even of the other Spanish American countries' (Sousa-Leão, 1944; pp.60-2). In the text prefacing the first published survey of *Modern Architecture in Brazil*, by Henrique E. Mindlin (1956), one of the early propagandists of Modernist architecture and CIAM (Congrès Internationaux d'Architecture Moderne) General Secretary, Siegfried Giedion, recycled Freyre's romantic interpretation of Brazilian slavery, and presented Brazilian Modernist architectural forms as shelters of Brazil's golden utopia: 'Unlike the USA, Brazil has solved the difficult racial problem: in the beautiful housing estates of Pedregulho [Affonso Eduardo Reidy, 1947-58, Rio de Janeiro] negroes and Norwegians are living side by side' (Giedion, 1956; p.ix).

David Underwood interprets Niemeyer's appropriation of the 'popular type' of the hillside shanty for the use of 'only the upper classes', in his House on Carvalho de Azevedo Street, as a 'monumentalization of the vernacular', which 'serves to legitimize the elite conquest of the usual realm of the *favelados*' (Underwood, 1994; p.38). *Pace* Underwood, Niemeyer's aesthetics of randomness and utilitarian simplicity steered clear of a romanticisation of poverty and social marginalisation, that such appropriations usually effect, contesting the myth of the picturesque *favela*. His interest in Rio's Black 'vernacular' coincided with a time when the 'disreputable nigger neighborhoods' of the city featured in the Brazilian press as a source of potential major international embarrassment.

The year when Niemeyer's house was constructed (1942) was also the year when Orson Welles was filming *favelas*, and Afro-Brazilian carnival and samba for his ill fated, 'pan-American documentary' *It's All True* (never released, partially reconstructed in 1993). Welles was 'well attuned to the power and intelligence of what Robert Farris Thompson calls "black Atlantic civilization", and therefore well prepared to appreciate the black contribution to Brazilian culture.' But the Rockefeller Committee, which promoted economic measures of 'goodwill' among the Latin American Republics, and disseminated 'positive images' of Latin American nations in the United States, strongly advised Welles – a representative of the Good Neighbour policy – to avoid showing Blacks and mulattos to North American audiences, and to exclude 'any reference to miscegenation'. Both US authorities and the Vargas government objected to 'nigger singing and dancing'. The local press expressed uneasiness with Welles's portrayal of Rio 'as though [it] were another Harlem', and insisted that he should show Brazil 'to the world as a civilized nation', excluding 'all the negative elements of [the] land' (Stam, 1997; pp.122-9). Brazil's 'myth of racial democracy' (Florestan Fernandes) was to be exported through hyperreal images of the Brazilian Indian,

the Black and the humble poor. As long as these images remained confined within the sphere of culture and folklore, they were positive and highly valued. But when they threatened to become real and thus acquire political meaning and potentially power, as in Welles's film, they were perceived as negative and were censored. Walt Disney's *The Three Caballeros* (1944) offered a solution: it celebrated the black Baiana *tias* in their innocently exotic, lily-white incarnation, detaching the entertaining sound of African instruments from black bodies that would have spoiled the Hollywood spectacle and shocked its audience (Stam, 1997; pp.85, 119). But rather than 'whitening' the architecture of the shanties while preserving their exotic appeal, Niemeyer's embracing, even privileging, of the excluded 'aesthetics of bricolage' articulates his and Brazil's utopian longing for social and interracial dialogue and equality.

At a time when Blacks were not allowed into the Cassino da Urca, Niemeyer denounced an architecture of segregation, and granted entry to the domestic workers of his house – most likely black – through the front door. Although it may have not overtly challenged social hierarchy, the Lagoa house, built at a distance from 'the impertinent beach-going socialite set' (Niemeyer, 2000; p.28), may be interpreted as an attempt to grant legitimacy to the voice of those socially and politically incapacitated members of Brazilian society, who are allowed 'no right to speak'. Paying homage to the disempowered architecture of poverty and marginality, Niemeyer's house revealed its dignity, in a manner that would find followers in the subsequent decades, notably Lina Bo Bardi (1914-1992) and João Filgueiras Lima (Lelé, 1932-). Positing the peripheral, urban popular Black architectural practice of the *morros*, 'from which come all moral and material miseries and all vices', according to Marcelo Mendonça, one of the founders of the Brazilian *Instituto Central de Arquitetos* (quoted in Outtes, 2003), as a legitimate, central source of inspiration for modern Brazilian architecture, Niemeyer risked rendering it into a commodity for consumption, like other Black cultural practices such as music and dance. But he also claimed for 'the filthy favela huts infesting the lovely edge of the lagoon' (Angora quoted in Stam, 1997; p.129) a status in Brazil's historic past (and present) equal to that of the 'venerable old baroque churches' (Niemeyer, 2000; p.62), turning the subaltern architecture of practical necessity into architectural strategy, and thus empowering it. Establishing a continuity with the Corbusian 'black disorder' (Le Corbusier, 1948; p.46) of the architecture of the oppressed 'no good half-breeds' (Angora quoted in Stam, 1997; p.129), Niemeyer deployed its force to contaminate – although not sever – the hegemonic bourgeois Modernist model, and open up its field of significance. Architects like Lina Bo Bardi and Lelé would later take things forward, seeking to also open up a space for the significance and aesthetic power of that Other architecture to resonate.

Oscar Niemeyer's High Density Domestic Environment in the Centre of Brazil's Industrial Metropolis

Despite declining North American geopolitical and market interests in Brazil and Latin America after World War II (the OCIAA – Office of the Coordination of Inter-American Affairs, established in 1940 and directed by Nelson Rockefeller – was shut down by Truman in 1946), Brazil's intensified industrialisation from 1930 to the late 1950s was marked by an economic and technological dependence on the United States. This increasing North American dependence influenced Brazil's social and cultural fabric (Caldras & Alcázar). With the post World War II shift of the centre of representation of the 'civilised world', from the Old World of Europe to the 'First World' of the United States, Brazil's booming industrial centres turned towards the North American model of modernisation, progress and 'rational organisation' of industry. Brazil's urban middle class modelled its living and working patterns on those of the United States.

In the catalogue of the 1955 MoMA exhibition on 'Latin American Architecture Since 1945', Arthur Drexler drew the public's attention to the Latin American 'predominantly "modern" cities', anticipating the future appearance of US cities (Drexler, 1955; p.8). Henry-Russell Hitchcock confirmed the unrivalled modernity of Latin American cities, where the 'new architecture [...] belongs specifically to the age of the airplane', acknowledged the North American influence evident in the vertically rising city centres, and noted that 'the skyscrapers rise thicker today in Mexico City or São Paulo than in most cities of the United States'. He singled out Brazil as the country with 'the most solidly established modern tradition', and pronounced the Modernist Santos Dumont Airport (Marcelo and Milton Roberto, 1937), in Rio de Janeiro, 'perhaps the most beautiful in the world'. For Hitchcock, São Paulo, 'the centre of activity of the most intensely personal talent in architecture, Oscar Niemeyer [...] epitomise[d] the incredibly rapid

transformation of the architectural scene in the last fifteen years' (Hitchcock, 1955; pp.11, 30, 28-29, 12, 36).

The state of São Paulo, Brazil's chief exporter (50% in 1912), had played the leading role in the coffee dominated economy, and its influence extended to national and international politics. Brazil's first civilian president, Prudente José de Morais Barros (1894-98), was the first republican governor of São Paulo. With the transfer of capital from coffee to industry, and a manufacturing industry already growing during the first decades of the twentieth century, São Paulo, the region with the best transportation facilities, became Brazil's industrial giant and economic powerhouse. Between 1905 and 1930, São Paulo tripled its population (822,400). Ford launched its first assembly line in 1921, and General Motors in 1925. The city's first reinforced concrete skyscraper, the thirty-storey Martinelli Building, rose to 130 m, in 1929, surpassing Rio's *A Noite* (102.5 m), completed one year earlier and at the time the tallest reinforced concrete building in the world. The Martinelli was designed by the Lacombe Brothers, and was crowned by a four-storey mansion with private elevator and garden, for its Italian immigrant owner, Giuseppe Martinelli. Claude Lévi-Strauss reported that, already in 1935, 'the people of São Paulo liked to boast that their city was expanding at the rate of a house every hour' (Lévi-Strauss, 1965; p.101). In 1947, the thirty-six storey Altino Arantes Building (Plínio Botelho do Amaral with Franz Heep) with its luxuriously finished interiors rose to 161m, and referenced the Empire State Building. By 1950, São Paulo boasted 47% of national industry, rising to 54% by 1960. It employed half of Brazil's factory workers, and produced half of its GDP and more than half of federal revenues. In 1953, it became a metropolis, Brazil's largest urban nucleus, with 2,7 million inhabitants overburdening its services. In the 1950s, it saw 21,600 new constructions, almost double that of the previous decade, while it boasted 6,000 streets and 170,000 cars. With high literacy rates, the affluent São Paulo possessed, also, a powerful and influential electorate.

Oscar Niemeyer's first building for the birthplace of Brazilian Modernism was designed in 1951, the year of the first São Paulo International Art Biennale. The imposing forty-storey Copan Apartment Building (140 m, commissioned by Otavio Frias, constructed 1957-66, under the supervision of Carlos Lemos, director of Niemeyer's office in São Paulo), with 5,000 residents in 1,160 apartments (from 25 to 150 sqm), and 107 employees, remains the largest structure ever built in Brazil, and the largest residential building in the world. It is São Paulo's definite landmark with its own post code. The original scheme for the complex comprised two blocks: the gigantic residential open-S-plan block, winding its way through the irregularly shaped site, juxtaposed to a smaller rectangular hotel block for 3,000 guests (eventually replaced by a bank designed by a different architect). Both blocks are raised on pilotis, apparently standing on freeform, joined platforms, at second floor level, a solution similar to that proposed in Niemeyer's two schemes for the gigantic Quitandinha-Petrópolis hotel-cum-apartment development (1950 and 1953, not built).

In Niemeyer's original design (plans and photographs in Papadaki, 1956; pp.40-3), the freeform platforms unite the two blocks of the Copan, while also mediating between these and the two intersecting streets. In the two- or three-storey high area beneath the platforms are accommodated retail, leisure and recreation spaces (including the hotel lobby in the original scheme), in a series of freeform, double-height volumes, articulating a labyrinthine arcade (Fig. 1). As the large residential block snakes towards the lower S. Luiz



Figure 1. Oscar Niemeyer, Copan Apartment Building (designed 1951), São Paulo, public arcade.

Street, another floor deck is inserted beneath the large platform, to divide the resulting triple-height space, creating a double height space at ground floor level and a loggia with deep overhanging soffits above. This inserted slab, the slab of the huge platform, and the one above the third floor pilotis are emphatically delineated on the boundary of the building. All other elements – columns, the external membranes of the freeform pavilions, balustrades etc – are kept in check, set back and in darker colours, allowing the bright, flowing horizontal ribbons to freely wrap around the Copan, tiers of strata tying the various formal and programmatic elements together while still preserving the penetrability of the building's public base. An external staircase

articulates another link with the surrounding street spaces. The generous landings are claimed by users in unanticipated ways, as places for informal contact, for a rest in the sun or as viewing platforms. Between the two blocks, a central pedestrian shopping street is open to the sky, except at the point where the two platforms are linked, while narrower, covered streets are articulated under the platform of the residential block.

The two, originally linked, freeform platforms play a role similar to that of the favourite *marquise* Niemeyer employs in so many of his projects, uniting the various spaces in the intricately laced public areas which address directly the city, while also serving to distance from the level of the street the private spaces of the upper floors of the two blocks. The amoebic *marquise* is aligned with S. Luiz Street and with Avenida Ipiranga along the long, northern elevation of the sober, recessed hotel block. Extending beyond the residential block's shaded pilotis area, at third floor level, it provides it with a sunny balcony, a private beach along the entire northern façade, encouraging sociability and a sense of community, which becomes even wider at the sunniest spot along the convex arc of the S-plan. On this level, under the raised pilotis, are located the lobbies of the residential block, and a theatre to the south.

The external treatment of the playful volumes under the *marquise*, a meticulously detailed collage of glazing, timber slat cladding and white render panes, heightened by window displays, contrasts sharply with the homogeneity of the façades of the blocks above, encouraging leisurely circulation through the free flowing open spaces. Never exposing a hard edge to the surrounding public space of the city, the polychrome volumes invite the city to permeate the arcade. Movement through the curved internal streets awakens a sense of discovery appropriate for a shopping arcade, as new possibilities unfold around every corner.

In the original scheme, the large amoeba of the restaurant invades the space of the first floor pilotis of the hotel, with a second entrance under the pilotis. Its largest area flows beyond the outline of the rectilinear slab, opposite the concave part of the residential block. Another variant of the freeform *marquise* was introduced here. The concrete roof slab of the restaurant followed neither the contours of its walls, nor of the platform beneath it, a composition that anticipated the rhythmical movements of Niemeyer's second house at Canoas (Rio de Janeiro, 1952). In an arrangement prefigured at Pampulha (Casa do Baile, 1940-43), the restaurant roof slab was envisioned to tail off and swing away from the enclosed volume, into a serpentine which threaded its way through the large hotel terrace, embracing a smaller bar, and shading part of the open air dining area. Both inside and outside the restaurant, the structural columns appear scattered at random, thus heightening the fluidity of the free curves, unrestricted by geometry, utility or gravity. Photographs of the original model show that both the hotel terrace and that of the residential block were to be paved in black-and-white marble, with the black amoebic patterns already employed at the Pampulha Church of São Francisco de Assis (1940-43), flowing in and out of the space of the pilotis. Under the residential block, another freeform volume responded to that of the restaurant across the bridge linking the two platforms. Without the eloquent programmatic and unprogrammatic spaces of the restaurant area, an essential point of dialogue between the two volumes and programmes was lost. But the street level arcade was realised, inscribing the city centre with a much needed, highly animated urban site with a buzzing ambience, very popular until the late 1970s when the nightlife of São Paulo's fashionable started drifting towards the 'safer' suburbs.

At a time of explosive urban growth in Latin American cities, suburban developments like Luis Barragán's Gardens of El Pedregal, outside Mexico City, had begun to allure those who could afford it to flee the city and retreat in suburbia, although the working men would always return to it for business. Few years earlier, Giedion had called for a rethinking of cities beyond their conception 'as mere agglomerations of jobs and traffic lights' (Giedion, 1984; p.59). By the time the Copan was built, São Paulo already had a number of leafy, low-rise and low density garden cities outside the increasingly crowded urban core, realised from 1912 through to the 1920s, with English architects Barry Parker's and Raymond Unwin's Jardim América the first and best known of these. Niemeyer's high density domestic environment right in the centre of the technocratic city configured a site of resistance to urban flight and the 'bourgeois utopia' of the North American suburban, picturesque enclaves insulated from the workplace (Fishman, 1987).

Questioning the Hierarchies of the Gendered City

The dynamism of the curvilinear volume of the Copan is strongly accentuated by the continuous horizontal shadow-casting *brises-soleil* – three per storey – and all the more powerful amidst the cylindrical towers and hard edged skyscrapers of downtown São Paulo. Catherine Séron-Pierre suggests that this ‘monumental, stratified wave provokes a real rupture in the brutal, repetitive landscape of the city’ (Séron-Pierre, 2002; p.77). At the very least, it articulates a site of tension. Presenting the Paulistas with an alternative model of urban, and implicitly social, organisation, the curvaceous residential Copan challenged the postwar American, masculine order of the vertical city and the life of its citizens. The part that was eventually not realised promised to bring in the very middle of the white collar arena a site of pleasure and *dolce vita* only few years before cast in the idyll of a new suburb (Pampulha).

The free flowing curves were not confined to the partially screened interior of the site. The gigantic wave of the residential block raised its flowing curves above street level, engaging with the right-angled office landscape, tempering verticality with sensual horizontality, impregnating the American city with a new spirit.



Figure 2. Oscar Niemeyer, Copan Apartment Building (designed 1951), São Paulo, northern façade detail and third floor balcony.

The deep, glazed concrete sun-breaks of the Copan fulfil both shading and aesthetic requirements, producing a foliated effect which gives the building its distinct image, imparting palpability and movement to the static grid of the city, and rendering the façade soft and permeable, in sharp contrast to the foreboding and impenetrable steel-and-glass surfaces of dogmatic homophonic skyscrapers. Constantly changing light and shadow further animate the horizontally striated, highly textured northern elevation which is never perceived as a single plane like the façade of the typical apartment block. The built version of the Copan's three-dimensional façade (Fig. 2), in which the slender vertical elements, recessed and painted blue, have almost totally disappeared, especially for street viewers, is considerably more effective than the one in the model, emphasising horizontality, inviting the eye to surf along the undulating blades of the great concrete wave. The striation of the façade is twice interrupted by the omission of two rows of *brises-soleil*, intensifying movement along the flowing horizontal grooves, and undermining the solidity of the softly gliding huge volume, imbuing it with the energy to embrace and consume the rigid, vertical city.

At the beginning of the century, Adolf Loos had established the polarity between a ‘horizontal line: the reclining female’ and a ‘vertical line: the penetrating man’ (Loos, 1962; p.277). In his own apartment, he established a sharp distinction between the sober comfort of the living room, which he

associated with his ideal of the English gentleman, and the sensuality of ‘*das Zimmer meiner Frau*’ (Schorske, 1998; p. 167). In the early 1940s, at Pampulha, Niemeyer had already launched his

challenge [against] the monotony of contemporary architecture, the wave of misinterpreted functionalism that hindered it, and the dogmas of form and function that had emerged, counteracting the plastic freedom that reinforced concrete introduced. I was attracted by the curve – the liberated, sensual curve suggested by the possibilities of new technology [...] I deliberately disregarded the right angle and rationalist architecture designed with ruler and square to boldly enter the world of curves and straight lines offered by reinforced concrete. [...] This deliberate protest arose from the environment in which I lived, with its white beaches, its huge mountains, its old baroque churches, and the beautiful suntanned women. (Niemeyer, 2000; pp.62, 169-70)

Niemeyer's Casa do Baile offered a potent counterstatement to the Modernist canon of rationalist straight lines and right angles, through the use of Brazilian curves and tropical motifs which epitomised sensuality, eroticism, irrationality, laziness and *dolce vita*; through the substitution of the orthogonality of reason for the sensuous curves of the female body.

Niemeyer's mantra assaulted the functionalist paradigm: '[m]y work is not about "form follows function," but "form follows beauty" or, even better, "form follows feminine"' (Metz, 1997; p.35). Opting for ornate, fluid and mutable forms, Niemeyer opted for things feminine epitomising sensuality, as opposed to things austere, straight, fixed and static, traditionally associated with the male and with a narrowly conceived rationality. As Barbara Hooper has argued, for Le Corbusier, the feminine, especially the primitive feminine, 'represents what disfigures the orthogonal forms of modern architecture' (Hooper, 2002; p.62). Niemeyer used feminine, eroticised curves as means to resist that rationalist fear of the body – especially the female body – which he recognised in the utilitarian rationality of architectural Modernism, and subvert the hegemonic Eurocentric rational order of modern masculinist civilisation, which austerity of form and restraint of self-expression would valorise.

The Copan's irrational, feminine thrusting curves, in the centre of São Paulo, contrasted sharply with the 'cold, hard, unornamental, technical image' of the contemporaneous New York City Lever House (Skidmore, Owings & Merrill, 1952) (Ockman, 1996; p.195) typical of the North American corporate capitalist landscape, representing 'a maximum of technical ingenuity with a minimum of dissent' (Hodgson quoted in Ockman, 1996; p.195), and in the eyes of Pevsner an example of architectural 'evolution' as opposed to the Brazilian 'revolution' (Pevsner, 1963; pp.431-3). At a time when Taylorism influenced zoning was promoted by city planners as the solution to all urban problems, the Copan emphatically positioned in the city centre the threatening peripheral realm of domestic, tropical, feminine curves, assaulting and transforming prevailing images of the virile city of male business and phallic, stifling skyscrapers. On 18 October 1956, Flávio de Carvalho paraded the streets of downtown São Paulo sporting his polemic 'new look' of skirt, blouson and sandals for the 'new man of the tropics' (first presented in 1952).

Until then, Niemeyer had proposed curving slabs for programmes associated with leisure, on non-urban locations, the Pampulha and the Quitandinha-Petrópolis complexes. Affonso Eduardo Reidy's double undulating block for the Pedregulho Low-Income Housing Complex (with engineer Carmen Portinho, 1947-58), although close to downtown Rio, rose at a safe distance from the business district. Its sinuous curves were, furthermore, related to the curves of Rio's mountains, and thus conveniently confined to the world of natural imagery and private domesticity. Alvar Aalto's 'attempt to free architecture from the threat of rigidity', the undulating Baker House Dormitory for the Massachusetts Institute of Technology (Cambridge, 1947-48), had also been built at a safe distance from the city fabric, by the Charles River, in the kind of picturesque surroundings for which Le Corbusier too saw the choice of the curve as justified (Le Corbusier, 1987; pp.208-9). The source of Aalto's design had also been firmly located in nature, more precisely, in 'the curved contours of the Finnish lakes' (Giedion, 1949; p.472). Le Corbusier located Niemeyer's curves, too, in the 'mountains of Rio', a comment Niemeyer treats with certain nonchalance, preferring to privilege instead the femininity of his sinuous lines.

Niemeyer's high density domestic complex introduced into the rational order of the city the curves of 'confusion' and 'rectitude' Le Corbusier had denounced just few years earlier, in his *When the Cathedrals Were White*: '[l]et's not graft plastic forms' on cities, obstructing their clear, liberating 'checkerboard' (Le Corbusier, 1947; pp.49-50). In *The City of To-morrow and Its Planning*, Le Corbusier had banished the curve from the city where there is no place for 'happy-go-lucky heedlessness'. For a city where 'order' and 'absolute exactness' are paramount, he proposed the right angle and 'the straight line; it is the proper thing for the heart of the city. The curve is ruinous, difficult and dangerous; it is a paralyzing thing' (Le Corbusier, 1987; pp.10-2). Convinced that 'a modern city lives by the straight line', Le Corbusier had urged: '[w]e must have the courage to view the rectilinear cities of America with admiration' (Le Corbusier, 1987; p.10).

The Copan's freely undulating, sensual form decidedly invaded the urban core of Latin America's premier industrial and financial centre, contesting the dichotomy between the private, feminine world of home and pleasure, and the public, masculine world of work and power, articulating the possibility of a rethinking of the gender polarities of the North American city. Although it did not resolve existing dichotomies, it introduced a rupture which problematised them. There is no intention here to suggest that Niemeyer was overtly defending a feminisation of urban space. Nevertheless, his feminisation of canonical rectilinear Modernist blocks, and the implanting of an imposing feminine giant right at the pivotal heart of the male dominated, vertical business centre of the city implicitly challenged prevailing assumptions about the

gendering of city structures and spaces, and the invisibility of women in 1950s' profoundly patriarchal Brazilian society. Like the early Modernist European models, the American erect skyscraper was not rejected; it was contaminated with the sensual movements of Brazil's tropical nature and the Dionysian rhythms of feminine curved horizons. The juxtaposition of the dominant 'Aphrodisiac curves' (Freyre, 1956; p.275) of the Copan and the submissive rectilinear slab suggested a questioning of the hierarchy implicit in gendered city symbolism, through a reversal – carnivalisation – of the asymmetry of gendered signifiers of domination and oppression.

Somewhat surprisingly, Le Corbusier had proposed for the city of Rio de Janeiro a curvilinear 'immense expressway' on which he raised his *immeuble-villas*, 'from 30 to 100 meters' above the ground. He presented his solution as having resulted from the topography of the city, 'striking from hill to hill and stretching hands from one bay to the next', striving 'to dominate the enchanting site' (Le Corbusier, 1991; pp.242-4). Barbara Hooper points out that the 'primitive female body' that Le Corbusier abjected returned in the 'curvilinear lines that [he] first use[d] in spaces he view[ed] as outside and other: in Rio de Janeiro [...] in Chandigarh [...] in Algiers' and in the 'chapel at Ronchamp' (Hooper, 2002; p.63). Upon arriving in Rio, he had felt simultaneously enchanted and threatened by the 'universally proclaimed beauty' of the city with its 'disorderly green flame' conjuring images of 'green hell' (*Inferno Verde* was the title of Alberto Rangel's Indianist short stories of 1907). He admitted that he first thought it a 'waste' of time trying to plan anything for Rio, fearing that '[e]verything would be absorbed by this violent and sublime landscape.' His 'big architectural beltline' was designed to 'connect the city rapidly with the high hinterlands of the healthy plateaus', enabling an easy escape from 'this magical sight' (Le Corbusier, 1991; pp.234-44) that threatened to devour the rational creations of the European mind. Niemeyer, on the other hand, brought into the city that faced no threat from nature the forms associated with destructive (feminine) disorder and the violent tropical jungle, in order to destabilise the technoscientific image of white, bureaucratic, orthogonal rationality. His exaltation and radicalisation of the feminine Other confronted the leaden lines of the 'ideology of monotonous vacuity' which Bloch held responsible for the 'undernourishment of the [architectural] imagination', with the exorbitant 'ornamental force' (Bloch, 1979; p.46) of a liberating sculptural form.

Towards a Critique of Hegemonic Identity

Before the construction of the Copan had begun, Niemeyer grafted the plastic form of a luxury apartment building on the city of Belo Horizonte (Fig. 3). Today, this prominent landmark building bears the name of its famous architect and boasts Tancredo Neves, first elected civilian President of Brazil (1985), after the twenty year military dictatorship, among its former illustrious residents. The twelve-storey high



Figure 3. Oscar Niemeyer, Niemeyer Apartment Building (1954-60), Belo Horizonte.

Niemeyer Building (1954-60) is proudly perched on Praça da Liberdade, one of the most privileged and highest spots of the city, designed at the end of the nineteenth century as the civic centre of the new capital of Minas Gerais, with the Beaux-Arts eclectic State Governor's Palace and State Secretariat, and gardens inspired by Versailles. On a triangular lot, at the junction of three main roads, by the open square, surrounded by relatively low-rise buildings and opposite the Governor's Palace, Niemeyer's assertive residential tower dominates the urban space. Its entirely free form leaves no doubt as to his intention to hoist high the colours of his defiant rejection of the ideological and formal constraints of orthodox Modernism, in favour of an eroticised curvaceous world of luxury and sensual pleasure. At the same time, anchoring this private world in the heart of the city, Niemeyer subverts the image of the civic centre as stable and authoritarian, in favour of dynamism, elasticity and malleability.

The biomorphism of the plan of the Niemeyer Building recalls Mies van der Rohe's Glass Skyscraper of 1922. Yves Bruand noted the resemblance, but also the two projects' distinct material qualities (Bruand, 2003; p.161). Most importantly, Mies's dematerialised glass structure points towards a lofty Platonic ideal

free from its carnal prison, while Niemeyer's concrete plasticity evokes a dynamic sensuous reality that is all earthly and corporeal. Lauro Cavalcanti observes that 'Mies's tower had an absolute vertical orientation that is not the case with Niemeyer's', remarking that 'Niemeyer took advantage of reinforced concrete's weight and malleability to explore the drama of vertical composition.'



Figure 4. Oscar Niemeyer, Niemeyer Apartment Building (1954-60), Belo Horizonte, *brises-soleil* and ornamental ceramic tiles.

The dynamism and 'provocative rhythm' (Cavalcanti, 2003; p.237) of the building's concave and convex curves are accentuated by the addition of thirty-six deep, impressively thin, horizontal sunscreens, which follow the contours of the floor slabs (Figs 4-6). They add a sense of movement which can be fully appreciated by the moving viewer, inside a car along Avenida Brasil or strolling in the open square from which the Niemeyer is always visible, its shape constantly mutating. The *brises-soleil* wrap the entire building, stressing the formal priority of the flowing contours, obliterating the dichotomy between solid and void on the façade. They function as sunshades on the glazed part of the façade, but continue along the solid wall, where the play of light and shadow underscores aesthetic concerns that transgress the original utilitarian intent of the device. Taking full advantage of the prominence of the site, Niemeyer has enhanced the grace and coquetry of his apartment block, covering the solid walls with ornamental ceramic tiles on a bold black-and-white leopard-skin-like pattern, which makes the curved surfaces appear to vibrate in the shifting sunlight.

A link to the 1920s' striated, streamlined Mendelsohnean forms may also be worth exploring. Whereas Mendelsohn's horizontal electrifying rhythms, however, receive their stimulus from the modern metropolis, the unhurried pace of Niemeyer's fluid curves refuses to adapt to the laws of the productivist city, relaying the energising power of the block's 'Aphrodisiac curves' to its surroundings, in an attempt to pacify, as it were, the destructive powers of the industrial-technological metropolis. The Niemeyer Building may also be seen to bear a superficial resemblance to the organicised skyscrapers of Norman Bel Geddes's 1939 streamlining spectacle of progress in the following 30 years in the US, *Futurama*. Niemeyer would have seen the diorama at the General Motors Pavilion, at the 1939 New York World's Fair. But Bel Geddes's utopia was specifically targeted to promote the Reichsautobahn-inspired superhighways of a technology driven future, boosting car sales in the process. Bel Geddes's curvaceous skyscrapers flanking the split 'highways of tomorrow', like the colourful cars that populated the models of the stage- and product-designer, were employed to popularise images of the automobile age and boost consumer confidence (Burgess, 2004). Niemeyer's apartment block in Belo Horizonte called to question the 'performance principle' and the ordered, rationalist technological image of the metropolis, offering playful movement as an alternative to efficient circulation, unrolling in the public fore an architecture that proposed pleasure as an aesthetic pursuit rather than pleasure as the satisfaction of consumer needs.



Figure 5. Oscar Niemeyer, Niemeyer Apartment Building (1954-60), Belo Horizonte, pilotis.

Outside the amoeba of the plan, where the Niemeyer block seems to fold into a curl, rises the building's only vertical element, the cylindrical stair tower, with its white rendered surface accentuating the impression of a deep fold. The undulating mass of the Niemeyer is elevated from the steeply sloping site on wide bare concrete slabs, defining parking bays, contrasting with the smooth white plastered

undersurface of the sensual amoeba hovering overhead, extending beyond the first concealed concrete deck, in line with the *brises-soleil* (Fig. 5). This gives the onlooker the impression that the entire residential volume rests on this paper-thin concrete saucer, Niemeyer's personal interpretation of the Corbusian 'completely new value in architecture: the *clean line of the underside of a building*. A building seen as in a showcase on a display support, *entirely legible*' (Le Corbusier, 1991; p.58). The sensuous interplay of textures continues at the entrance lobby, nesting among the slim concrete slabs. It is a light, penetrable box formed of a curved glass block wall, a solid wall clad with thin pink stone slats, and a clear glass wall which underscores spatial fluidity and invites entry to the apartment block. Ever unwilling to impose a door that divides the private from the public domain, Niemeyer cut the entrance to the apartment block out of the minimally detailed glass plane.

Niemeyer justified the intoxicating and transgressive Otherness of his version of Modernist architecture, purged of its dogmatic roots, in terms of its 'conformity with the Brazilian climate and our fantastic tropical nature' (Niemeyer, 1997; p.10). But his Dionysian subversion of Modernism's European ancestry and rationalist catechism is also grounded in this 'African-derived corporal aesthetics' that, as Michael Hanchard has argued, underlies the Brazilian 'national standard of beauty', and, like samba, is associated with sexuality and sensual pleasure (Hanchard, 1999; p.68). Commenting on the 'pervasiveness of the "Africanisms" in Brazilian daily life', Hanchard suggests that Afro-Brazilian cultural practices, in Brazil, are 'at once residual and dominant.' They are residual, as

national practices [...] manipulated for their symbolic resonance by Brazilian elites to display the heterogenic cohesiveness of Brazilians; they are dominant in that they are suffused in an almost transracial way throughout the norms and values of civil society. [...] The 'Africanization' of the female bodily aesthetic is one of Brazil's distinctive features,

exemplifying the dominating presence of Afro-Brazilian culture (Hanchard, 1999; p.78, n.4). In Niemeyer's work, the eroticised female body functions as a metaphor for curvaceous form. And it is

imagined as an Africanised body 'shaped in the baroque style we favored' (Niemeyer, 2000; p.54). His irreverent violations of Modernist rectangularity and rigidity of form were not achieved only through the feminisation of Cartesian geometry, but also through its Africanisation. They may be interpreted as attempts to graft on the Brazilian urban tissue agents of transformation which both extend to architecture the integration of symbolic African elements of Brazilian national cultural practice, and subvert the dominance of the white presence in the Brazilian bourgeois public and civic space.



Figure 6. Oscar Niemeyer, Niemeyer Apartment Building (1954-60), Belo Horizonte, *brises-soleil*.

It is worth observing that the time when the Niemeyer Building was rising to grace the civic centre of Belo Horizonte was also the time when a new picture of the reality of Brazilian race relations was emerging, following extensive field research sponsored by UNESCO (Skidmore, 1993; p.215), and originally aiming to demonstrate the virtues and success of the Brazilian model of 'harmonious' relations, especially as a counterexample to Nazi racism and US segregation laws. Growing evidence, however, exposed what later would be labelled the Brazilian 'myth of racial democracy', revealing persistent racial antagonisms and inequality. Whether consciously or unconsciously, turning Black corporeal aesthetics into the primary means of expression at his residential tower for the primarily white bourgeoisie, Niemeyer did not only challenge contemporaneous aesthetic conventions; he also voiced

recognition of all the invisible Afro-Brazilian women working in the tower's luxury apartments. Although there is no intention to suggest that we are dealing with an overtly anti-racist architecture, it is important to stress that the feminine and African element, in Niemeyer's work, is not simply tolerated or opportunistically appropriated to enrich a white, elite architecture. Through an architectural 'transformation of the Tabu into a totem' (Andrade, 2000; p.591), in accordance with the principles of

Oswald de Andrade's seminal Modernist *Manifesto Antropófago*, of 1928, the feminine and African element becomes the dominant and most dynamic trait of Niemeyer's *mestiça* architecture, instrumentalised to corrode white city centres with Black corporal aesthetics. In this way, his architectural *mestiçagem* may be seen as effecting an inversion of the racial hegemony that the official Brazilian ideology of ethnic amalgamation hypocritically concealed.

Mediating between the Urban and the Domestic

I still think Niemeyer is a great architect [...] the whole seamless project starts there. The whole idea of the ramp and the manipulated ground. It is very peculiar. The unfortunate thing about it is that this was all done in the 1950's [sic] and 1960's [sic], and not much more has been done in the last twenty or thirty years. (Zaha Hadid in Mostafavi, 2001; p.34).

Niemeyer's Conjunto Governador Juscelino Kubitschek (Belo Horizonte, drawings and photographs of model and building under construction in Papadaki, 1956; pp.44-51) was designed in 1951 to provide a variety of residential units, for permanent and temporary accommodation. Its thirty-six-storey tower (100 m), the city's third tallest structure, was completed in 1963. Niemeyer has dynamically manipulated and foliated the ground, drawing threads from the fabric of the city and weaving the base of the new building into it, introducing a number of spatial incidents and activities in the area between the apartment blocks and the street level or, rather, treating the street-ground level as a three-dimensional, plastic network of spaces and activities.

In contrast to the Corbusian sterilised ground of the pilotis, symbolising air and light, but remaining bereft of activity, the amoebic platforms of Niemeyer's residential blocks mediate between the public and the private, at points hovering above street level, at points growing out of the ground through pulling and stretching, and then splitting into fluid terraces which rip and tear into ramps and bridges. They do not aim to free but to multiply the living ground of the complex, articulate and layer its communal living space while allowing for different degrees of interaction between, and nuances of, public or private space. Beneath the new, raised or inserted levels, Niemeyer slots uses closer to the life of the street and the city such as shopping arcades and restaurants, while on the platforms that have been emancipated from the rectilinear grid of the city he arranges lobbies, restaurants, gardens, swimming pools, cafés, cinemas etc., activities closer to the everyday life of the residents, yet not entirely private, freely occupying the space of the pilotis, flowing beyond it onto the sunny terraces. Ever new configurations emerge within the space of Niemeyer's pilotis, which are never allowed to mark limits or draw sharp dividing lines between public and private space. The private space of his housing blocks is never abruptly cut off the city, raised 'on a [Corbusian] display support'; the complex three-dimensional landscape formations that penetrate the pilotis, connecting urban and domestic worlds, ensure a constant flow of city life, valued as the vital oxygen-carrying blood that guarantees the good life of the residents. In this sense, Niemeyer's perception of the vital role of the pilotis in guaranteeing a healthy living is radically different to that of orthodox Modernist housing paradigms which reject the city in favour of sun, air and greenery, where health is equated with hygiene and guaranteed through a sterilisation of the domestic environment, and where the pilotis functions by distancing the clean domestic world from the filthy and dangerous city and from dirty soil.

Oscar Niemeyer's iconoclastic violations of orthodox Modernist aesthetic etiquette and decorum challenged the functionalist formulae and moralism of technological rationalism, and questioned the postwar American, masculine order of the vertical and rectilinear city, that banned the threatening chaos of the private, female domestic world from the ordered, public, male dominated business centre. His polyphonic architecture calls attention to, and celebrates, the multiplicity and plurality of life in the rapidly growing Brazilian city. Somewhat paradoxically, it emerged out of a nationalist project of representation of an imagined coherent *mestiço* identity, yet at times it embodied a critique of hegemonic identities, affiliating with, taking on the responsibility of representing, and thus empowering, identity categories underprivileged by the nationalist project. At its best moments, Niemeyer's mid-twentieth-century residential architecture for the Brazilian city proposed a restructuring of representation in more egalitarian ways.

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