

# BRAZIL

## FEDERAL CAPITAL COMPLEX

Brasília, Brazil

1956-61. Architect: Oscar Niemeyer (born 1907).

### Publications

"Brasília." *Acropole* (São Paulo; special issue, July/August 1970).

COSTA, LUCÍO: "L'Urbaniste défend sa capitale." *Architecture: Formes et fonctions* (Lausanne). 14 (1968).

"Cultural Scientific Institute, Brasília." *AC: International Asbestos Cement Review* (April 1980).

EVENSON, NORMA: *Two Brazilian Capitals: Architecture and Urbanism in Rio de Janeiro and Brasília*. New Haven, Connecticut, 1973.

HOLSTON, JAMES: *The Modernist City: An Anthropological Critique of Brasília*. Chicago, 1989.

MAGALHAES, A., and FELDMAN, E.: *Doorway to Brasília*. Philadelphia, 1959.

NIEMEYER, OSCAR: *Minha experiência em Brasília*. Rio de Janeiro, 1961.

NIEMEYER, OSCAR: *Textes et dessins pour Brasília*. Paris, 1965.

STAUBLI, WILLY: *Brasília*. Stuttgart, 1965.

\*

The new capital of Brazil, replacing Rio de Janeiro in that capacity in 1960, Brasília is a monument to the determination and political ambition of President Juscelino Kubitschek, of modern Brazil's major planner and architect, Lúcio Costa and Oscar Niemeyer, respectively, and of the masses of Brazilian laborers who erected the frontier "city of the future" practically overnight. More than any other modern planning achievement, the creation of the Brazilian capital was the opportunity to realize the modernist dream of a futuristic city that would be both a work of art that symbolized national modernization as well as a motor for that development. An architect's rather than a planner's image of the modernist utopia, Brasília represents the realization of a primarily Corbusian ideal of the mechanized motor city created by a single architect striving for a unity of formal conception with an emphasis on technical and rational considerations in urban design. A large-scale laboratory for the evolution of International Style forms, the city reflects Niemeyer's unique capacity for pushing modern architecture to its formal and technical limits. Building upon Costa's plan, he created within its vast spaces a unified ensemble of distinct architectural monuments noteworthy for their classic volumetric purity, dynamic plastic richness and provocative visual power.

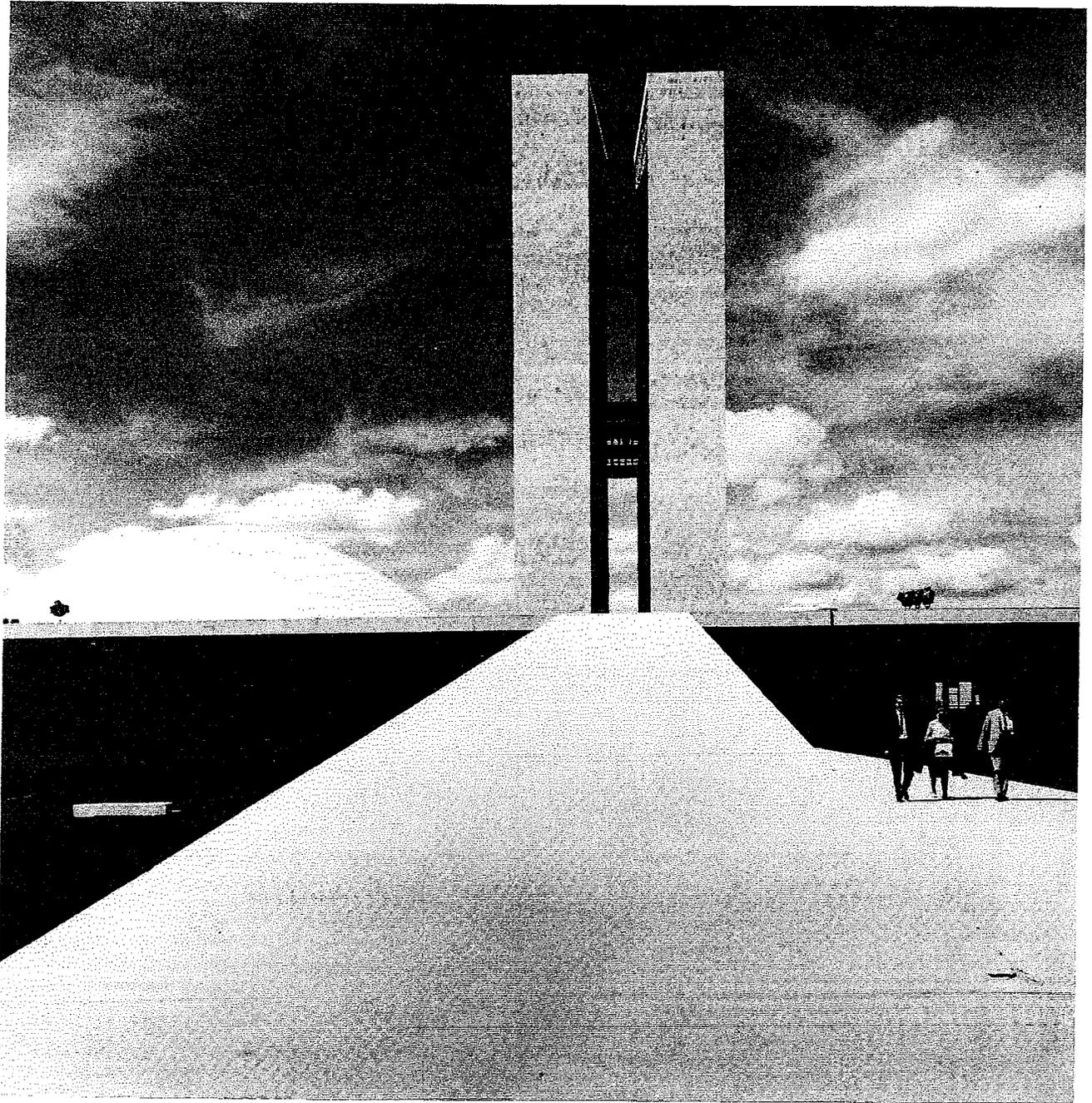
A project of unprecedented scope and colossal scale, Brasília was intended both to initiate and to represent Kubitschek's campaign for Brazilian development, advertised in the slogan "Fifty years of progress in five." Aware of the political vicissitudes of Brazilian political administrations and determined not to let his own project founder in the regime of a less-inspired successor, Kubitschek focused on building a city quickly rather than taking the time to plan it thoroughly beforehand. Inseparable from the city's development was the president's support of

Brazil's fledgling automobile and aviation industries. While Brasília's great distance from Brazil's major cities on the Atlantic coast meant that the new capital would be accessible primarily by airplane, its regional and interior circulation system of multilane superhighways demanded the automobile. Perhaps the most stunning aspect of Brasília's achievement is that the city and the technical infrastructure required to make it function were for the most part completed during Kubitschek's relatively short administration (1956-60).

Although the dream of a new capital in the Brazilian hinterland dates back to late colonial times and the movement for an independent Brazil, it was not until 1891 that the legislative groundwork for the new city was laid. A constitutional article called for the setting aside of 14,400 square kilometers on the central plateau, and a bill was passed authorizing the exploration and demarcation of the site. After a number of field studies and postponements of the decision, a site was finally chosen in 1953, during the Vargas administration. Three criteria were essential for the selection of the site. First, it had to be centrally located with respect to the population of the nation. Second, it needed to be centrally located to stimulate interregional transport and communications linkages. It had long been observed that too much of Brazil's population and economic activity had been concentrated in the Atlantic coastal cities. Third, proximity to interstate borders was sought because it would foster political and administrative unification of the nation. A fourth, unstated criterion concerned Brasília's projected role in the politics of Brazilian "developmentalism": the capital was to be a new "center" from which capitalist wealth, modern technology and "democratic" ideology would "trickle down" to the masses and the underdeveloped regions of the vast nation.

By April 1955 an expanded site (58,014 square kilometers) of gentle, shrubby savanna terrain bordering the states of Minas Gerais and Goiás had been surveyed during a 10-month period using aerial photography, a technique introduced into Brazil in 1927 by the French planner Alfred Agache in his master plan for Rio de Janeiro. Agache had tried in vain to enact a plan that would reform the old capital and its inefficient government bureaucracy. But Rio, with its long colonial history, its seductive beaches and culture, and its touristy atmosphere of leisurely self-indulgence, was widely considered unfit for the responsibilities of a serious administrative center of the future.

Elected to the presidency without a majority mandate, Kubitschek saw in the creation of a new capital not only a chance to reform the old Brazil, but also a means to insure the popular legitimation he so urgently needed. Perceiving and adroitly manipulating the widespread popular interest in the idea of a new capital, he moved quickly to secure congressional authorization for the establishment of a government corporation (NOVACAP) to oversee the city's construction. Niemeyer was appointed its director and headed the jury convened to judge the competition entries submitted for the design of the new capital. A number of projects were put forth, all characterized by their appropriation of garden-city planning elements: functional zoning, traffic separation systems, the use of a greenbelt as an urban divider, and residential areas ordered according to superblocks and neighborhood units. In the vast spatial context of the Brazilian central plateau, however, most of the proposals suffered from a fragmentation of space and forms, and from an excessive concern with a rational geometric ordering that was generally insensitive to the topography of the site. They

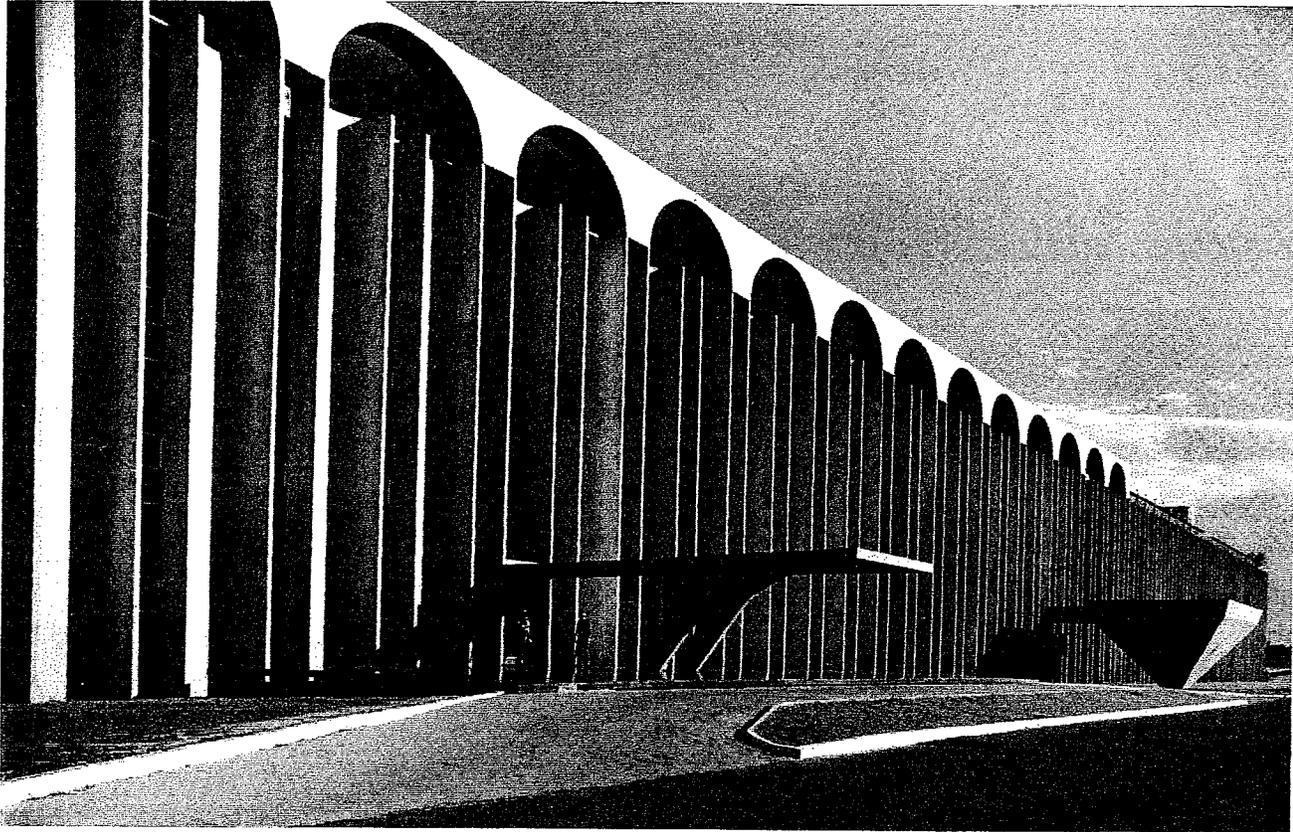


Federal Capital Complex, Congress: Brasília, Brazil, 1956-61

were generalized solutions which, in their oversimplification and schematization of functions and spaces, reflected a European textbook solution. But the successful design would have to be above all *Brazilian*, flexible to the needs of the future (as yet not very clearly defined by the architects), and responsive to the inspired spirit of willful improvisation that had been the very soul of Kubitschek's effort from the start.

The winning project by Lúcio Costa was at once the least detailed and the most brilliant of the entries. Costa presented his plan as a sudden inspiration, the product of a moment's creative extemporization based on his own intuitive understanding of the problem. For Costa, the plan of Brasília had to be above all a national symbol and a monumental work of art that

would clearly and appealingly express the goal and function of a monumental capital. In a few freehand sketches and a brief statement, Costa presented the idea of the capital in terms of a great crossing of monumental axes that was, on one level, an emblem of the primal act of bringing civilization to a virgin territory, and on another level, a visual expression of the marriage of the government functions of one axis and the domestic functions of the other. For Costa, it was the pleasing aesthetic idea and the creative artist that ruled supreme. The creation of an attractive image that could be appreciated in the same immediate way that a man appreciates a beautiful woman—this was the essence of his plan and the key to his civilizing act of consummation. As he put it: "When we see a beautiful



Federal Capital Complex, Ministry of Defense

woman we don't need much time to know we are pleased." What was important was the dramatic overture and conquest of the "virgin" land. The details of this difficult "marriage" between inspired art and a reformed society, between ruling well and living right, could be worked out in good time. Sooner or later, it was assumed, the benefits of the actions of the genius, taken on behalf of the people, would "trickle down."

The Brasília plan stressed a unity of artistic conception that was perhaps most evident to those arriving in the city by plane and glimpsing it for the first time from above. Falling in love with such an image after a superficial aerial glance, of course, presumes the same infatuation for modern transportation forms that we find in Le Corbusier. But whereas Le Corbusier had preferred the ocean liner, Costa's Brasília plan, appropriately, describes the body of a huge aircraft: the long and straight government axis is the fuselage—its cockpit is the brain center in the governmental complex of the Praça dos Três Poderes (Plaza of the Three Powers). The great arcing axis that intersects the fuselage describes the wings. It is on this curving "domestic" axis that we find the residential districts of the bureaucrats whose idealistically projected rational behaviors were to determine the future direction of this new urban machine. Their efficient performance was essential to the capital's flight plan: Brasília could never have taken off without them. Adding to the aviation theme is the fact that the multilane superhighways, traffic interchanges and interurban transport terminals that define the center of the city were conceived in the high-speed spirit of an airport: avenues became runways for cars which, once cleared for departure on the speedway, could find little chance of turning back. The death of the traditional urban street

system and the rise of the one-way access ramp celebrate unidirectional velocity and the city's uncompromising commitment to forward progress.

If Brasília was a city that left many of the details to the imagination, it fell to the sculptural imagination of Niemeyer to fill in at least the main architectural details. In designing the major structures of the new city, he focused his efforts on the governmental structures along the monumental axis. Within the spatial, formal and political hierarchy of the modernist utopia, the "control center" in and around the Plaza of the Three Powers received the most lavish attention. Against the bleak rectangular backdrop of the twin slabs of the Secretariat, Niemeyer cast the two curving compositions (one concave, the other convex) of the Congress and Chamber of Deputies. Enamored of the free-form curve, Niemeyer there achieved a sculptural power that depended not on its sympathetic reflection of the curving forms of the natural landscape, as the forms designed in his native Rio often did, but on the stark juxtaposition and visual contrast of the rectilinear and the curvilinear. What unites the forms and unifies the composition is the purity of interior volume they define and the complexity of the vast urban spaces with which they interact. As works of urban sculpture, Niemeyer's buildings in Brasília are incomparable; as functioning works of architecture, they have often been intensely criticized for sacrificing social depth to the aesthetic effect of the impressive facade.

Niemeyer's Alvorada and Planalto Palaces exemplify his interest in creating visually rich urban facades behind which lie the simplest International Style rectangular boxes of glass and concrete. By encasing these boxes in systems of concrete arches,

columns and piers, an appearance of incredible structural lightness and a weightless, ephemeral quality is achieved: there is nothing here of the brutalistic treatment that characterized Le Corbusier's capital in the Punjab, Chandigarh. Instead, Niemeyer's extroverted buildings achieve an almost classic refinement and a timeless, floating monumentality; they are above all products of and interactive participants in the vast space and unique urban drama that are Brasília.

Innovative structural expression and the interpenetration of exterior space and interior volume are themes forcefully explored in the Brasília Cathedral. The powerful sculptural presence created by its curving structural members, with its glazed interstices and crown-like superstructure, is again accentuated by its placement against the backdrop of the uninspired rectangular slabs of the ministry buildings beyond. In Niemeyer's Brasília, the masterpieces shine forth all the more because so much of the city's architecture celebrates the monotonously standardized and prefabricated, the simplified and regularized, the disciplined and the redundant. In a city in which the strictest governmental control was to regulate what was built and how, it was Niemeyer's good fortune to have a fairly exclusive *carte blanche* on artistic freedom.

In addition to the major buildings along the monumental axis, including a supreme court, the foreign ministry, the theater and the commercial sector with hotels, banks and shopping facilities, Niemeyer also standardized Brasília's housing into four basic types: six-story apartment blocks (accounting for 90 percent of the total housing in the city); lower-cost, three-story units; single-family units (one- or two-story); and row houses. Following Le Corbusier, he saw the multifamily apartment building as the best solution to the problem of modern housing.

Although Brasília's impressive utopian urbanism and bold monuments have taken their deserved places in the critical histories of modern architecture, many of the important details that were not addressed by the original "planning" remain to be worked out. Most pressing of all are the social details: Brasília's working people. The question of where these "details" are to be housed has not been resolved. Or perhaps it has. The vast labor force required to construct the city could not be accommodated in the original housing proposals. What has emerged as a result is a peripheral ring of "temporary" workers' camps that have become permanent shantytowns for the lower classes of Brasília. For all its impressive beauty, the modernist "utopia" has failed to transform fundamentally the Brazilian society it supposedly sought to reform.

—DAVID UNDERWOOD

## MINISTRY OF EDUCATION AND HEALTH

Rio De Janeiro, Brazil

1936-43: Construction; Architects: Oscar Niemeyer (1907-) and Lúcio Costa (1902-).

### Publications

BRUAND, Y.: *Arquitetura Contemporânea no Brasil*. São Paulo, 1981.

EVENSON, NORMA: *Two Brazilian Capitals: Architecture and Urbanism in Rio de Janeiro and Brasília*. New Haven, Connecticut, 1973.

FRAMPTON, KENNETH, and FUTAGAWA, YUKIO: *Modern Architecture: 1920-1945*. New York, 1983.

\*

The Ministry of Education and Health Building in Rio de Janeiro (1936-43) was the first monumental public structure in the style of Corbusian modernism to be officially sanctioned and erected in Brazil. Commissioned by the reform-minded minister of education, Gustavo Capanema, the building was the complex product of a fruitful artistic and technical collaboration between Le Corbusier and a talented team of young Brazilian architects and artists headed by Lúcio Costa and Oscar Niemeyer.

Dissatisfied with the academic- and historicist-style entries selected in a design competition sponsored in 1935, Capanema, who presided over the jury, paid the winners their cash prizes and called on Costa (who had submitted a disqualified project) to come up with a new, more modernist solution that would move Brazil forward into the mainstream of modern European architecture. Capanema's arbitrary action, though initially creating an outrage, was gradually accepted in part because of the increasing public recognition that Costa, who had initiated the curricular reform of Rio's Escola de Belas Artes in 1930-31, was the undisputed leader of the new generation of Brazilian architects. In an apparent effort to minimize the perception of the arbitrariness of his decisions and to "democratize" the design process, Capanema called on three other architects who had submitted disqualified modernist projects—Carlos Leão, Affonso Reidy and Jorge Moreira—to participate with Costa in elaborating a new design. A team composed of the best young Brazilian architects, it was felt, would result in a better, more broadly based Brazilian work. To this group of four would be added two others: Ernani Vasconcellos, whose inclusion was insisted upon by his usual collaborator Moreira, and the energetic and ambitious Oscar Niemeyer, who, determined not to be left out, imposed his own participation on his colleagues by calling attention to his work as Costa's chief draftsman. This definitive design team, formed in early 1936, was a highly homogeneous group: all were students of the reformed fine arts academy, and all were committed to the functionalist principles of Le Corbusier.

The team's commitment to Corbusian doctrine was reinforced by the intimate personal contact with the European master that occurred during his six-week stay in Rio beginning in July 1936. Invited to consult on the Ministry project and a plan for a *cidade universitária*, Le Corbusier delivered a series of conferences and soon assumed leadership over the initial planning for the Ministry. The evolution of the design and the form of the building as it was executed, however, illustrate that the Brazilian team went well beyond Le Corbusier's tutelage to create their own richer, more characteristically Brazilian masterpiece, one that would advertise the progress of Brazilian modernism internationally.

Le Corbusier's contribution, most strongly felt in the early stages of the design, consisted in moving the Brazilians away from certain academic tendencies that characterized early Brazilian functionalism. Rejecting their preference for symmetrical dispositions and absolute regularity of masses, he proposed a more plastic solution that called for a sweeping, horizontal mono-block instead of the beaux-arts U-form composition they preferred. Building upon Le Corbusier's innovation but rejecting his suggestion of a waterfront site for the building, the Brazilian team elaborated their design from his second project,



Ministry of Education and Health: Rio de Janeiro, Brazil, 1936-43

one with an asymmetrical disposition of masses that was nonetheless sensitive to the surrounding street pattern of the chosen center-city lot. From that, the team worked out a number of important adaptations that resulted most importantly in an emphasis on the vertical character of the building and its adaptability to the local climate. The Brazilian variant of Le Corbusier's "fixed" *brise-soleil* (sunbreaker), a concrete grid proposed for the facades of a 1933 Algiers project, was the horizontal *quebra-sol*, a system of movable louvers that could be adjusted for increased luminosity in accordance with the changing angle of the sun. The application of the *quebra-sol* system across the

entire facade resulted in greater balance between horizontal elements and the verticality of the block and, more important, in an increased plastic effect, and greater unity, proportion and formal purity.

Le Corbusier's original proposal for a composition of three distinct volumes—the principal office block, the exposition salon (perpendicular to the main block) and the conference salon (across from the exposition salon)—was carefully modified by the Brazilian design team into two continuous perpendicular volumes. This new arrangement, achieved by placing the exposition and conference salons on the same axis, resulted in a more

unified composition. The main block and exposition wing thus intersect at the conference salon, which was not constructed on pilotis but directly on the ground floor. The height of the conference chamber demanded that the pilotis of the main block be increased in height from the original four meters to 10 if the intersection of the two wings was to be visually and volumetrically congruous. The team's handling of the height and structural details of their own, more slender pilotis led to an effect very different from that intended by Le Corbusier. In the exposition wing, the pilotis were moved outward from the body of the structure and conceived as columns that supported their superstructure with small consoles or brackets of reinforced concrete. The result was the new sense of daring structural lightness that is often associated with the work of Oscar Niemeyer, who was probably also behind the suggestion that the pilotis of the main block be heightened. In 1940, Costa left the direction of the team to Niemeyer, whose impact on the plastic

conception of the ensemble was by that time the preponderant force in the evolution of the design.

The overall impact of the Brazilian modifications to Le Corbusier's ideas was the creation of a work that was at once more monumental and more dynamic. To this must be added the typically Brazilian interest in formal lyricism and decorative exuberance manifest in the colorful *azulejo* (ceramic tile) wall panels of Cândido Portinari. The inclusion of the *azulejos* by Portinari, the works of the sculptors Bruno Giorgi, Antônio Celso and Jacques Lipchitz, and the landscape gardening of Roberto Burle Marx marks the Ministry building as a milestone in Brazilian artistic collaboration and the first major example of Brazilian modernism's valorization of architecture as a *tour-de-force* showcase of a multimedia ensemble of great plastic richness and formal unity.

—DAVID K. UNDERWOOD