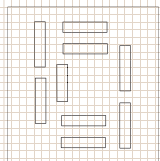


Martino Tattara

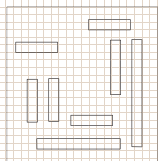


# BRASILIA'S PROTOTYPICAL DESIGN

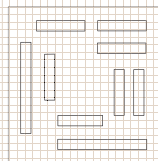
The prototype for Brasilia was captured by Lucio Costa's 1957 competition entry that constituted no more than a written description, a few sketches and a drawing of the superquadra. **Martino Tattara** describes Costa's vision for the city's residential blocks that so effectively defined the urban realm of Brazil's new capital.



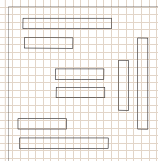
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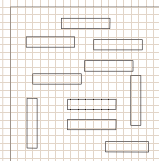
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308N

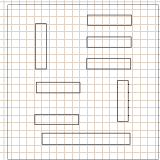


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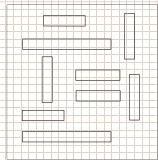


314N

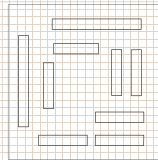
**Proliferation of the Superquadra Prototype**  
After the construction of the first superquadra, the original model was used by many architects for the construction of more than 100 quadras along both the northern and southern residential axes of the city.



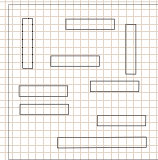
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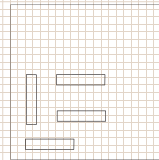
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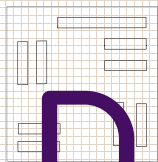
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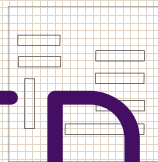
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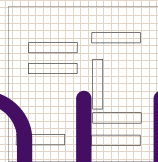
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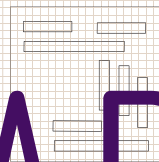
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208N



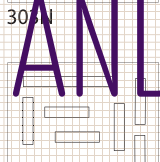
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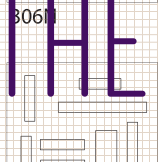
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# SUPERQUADRA

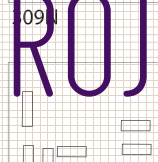
## AND THE PROJECT OF THE CITY



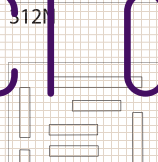
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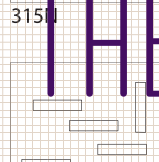
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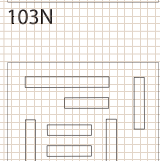
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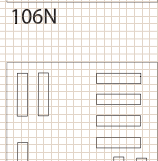
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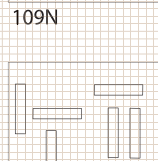
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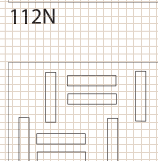
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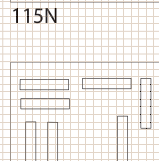
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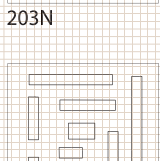
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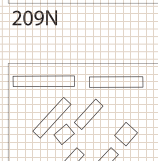
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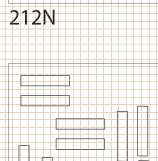
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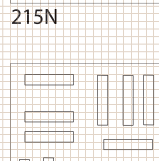
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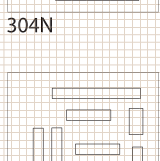
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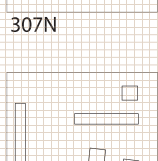
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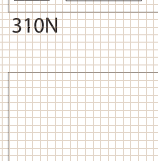
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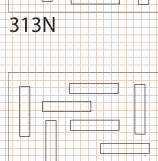
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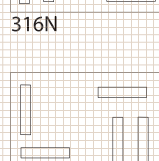
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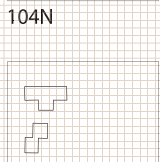
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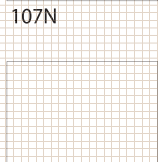
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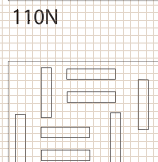
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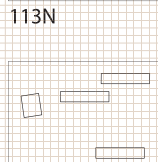
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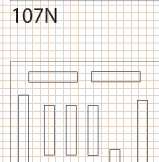
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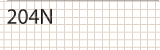
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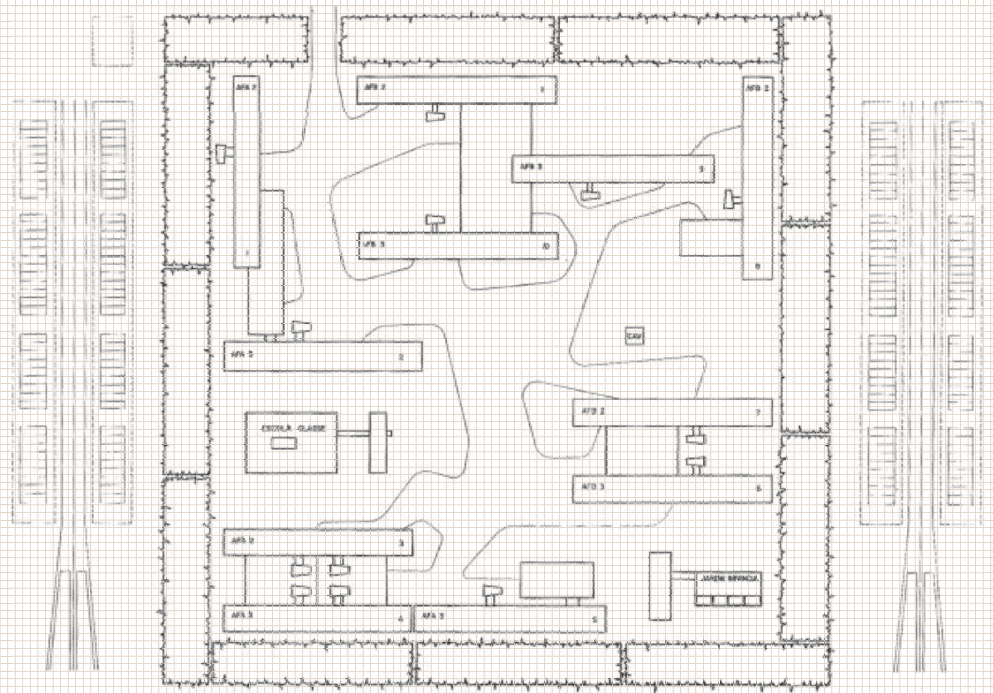
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One of the most compelling aspects of the pilot plan for Brasília, the capital of Brazil, inaugurated 50 years ago after three years of hasty construction, is the single unified manner in which it tackled both architecture and the city. In his proposal for the *Plano piloto* (pilot plan), Lucio Costa (1902–98) – the winning architect of the 1957 national competition to design the new capital for Brazil – quite consciously deployed architecture and urbanism in order to define a specific idea of the urban realm. Through a text (the competition report), a few sketches, and a drawing of the plan of the city, the architect was able to clearly describe at once all that was necessary to initiate and control the development of a city that a few years later would become the administrative and symbolic capital of the country and today its sixth largest metropolitan region.

To understand this unique approach to the project of the city, it is necessary to examine one part of the city's pilot plan: the project for the 'superquadra', the solution advanced by Costa to tackle the problem of housing and what he would call the city's 'residential scale',<sup>1</sup> and which, as revealed by the architect in an interview, represents the most positive outcome of the whole

project,<sup>2</sup> despite the city still today being commonly identified with the buildings masterly designed by Oscar Niemeyer along its monumental axis.

Costa's competition report, the *Memória descritiva do Plano piloto*, was, not mistakenly, immediately recognised by the competition's jury as the most extraordinary part of his submission. In the text, his single solution to the residential problem calls for a continuous sequence of large blocks set in double or single lines along both sides of the residential highway axis, each surrounded by bands of greenery planted with trees.<sup>3</sup> The city's residential system would not be formed by the linear disposition of urban blocks, but rather by a superquadra – a large-scale 300 x 300 metre (984 x 984 foot) urban block. What is striking here is how the description of the superquadra begins by tackling those aspects that would normally be considered, in relation to the residential problem, as secondary. Costa defines the superquadra thus:

[In every block ] where one particular type of tree would predominate, the ground would

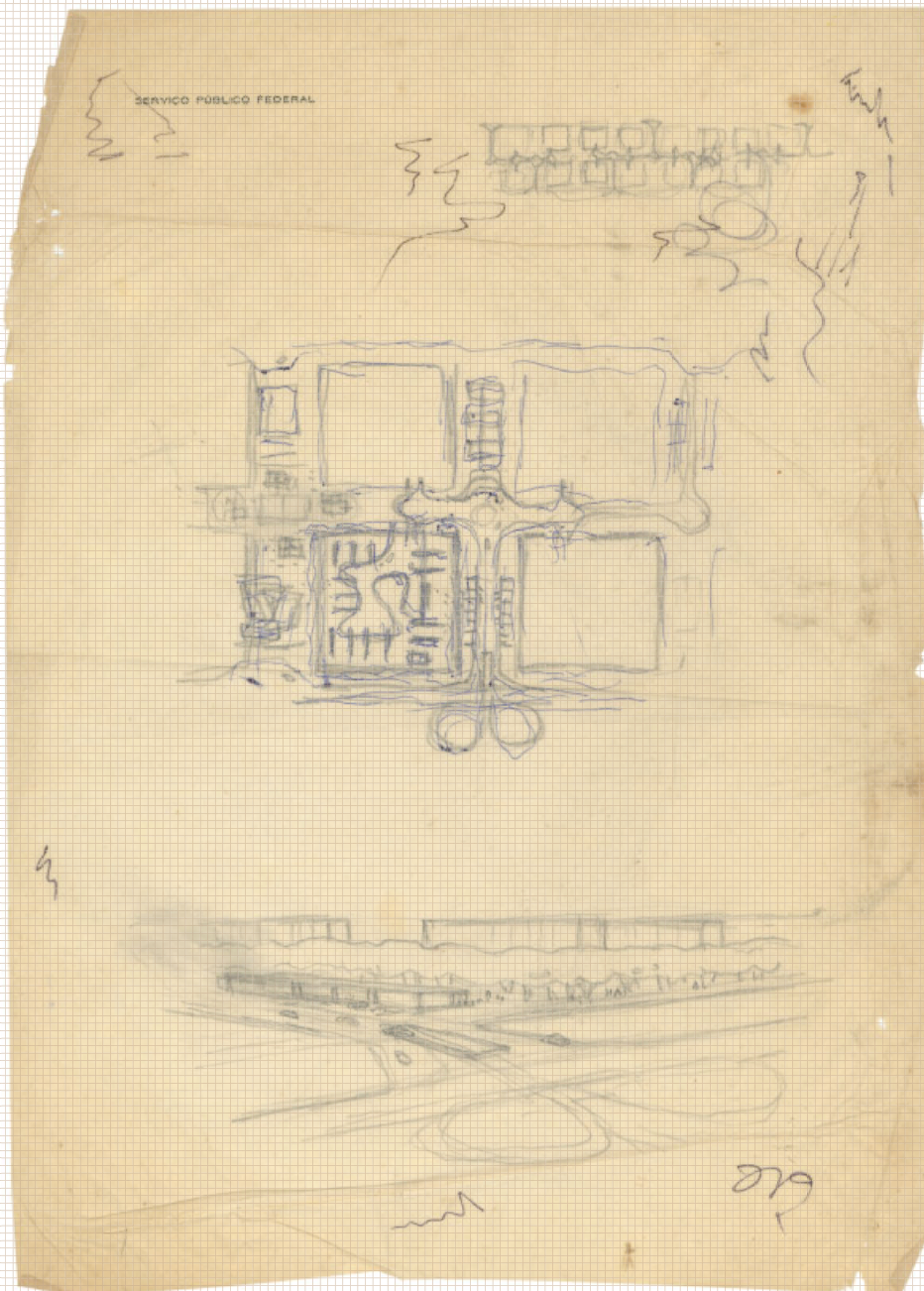
be carpeted with grass and shrubs and foliage will screen the internal grouping of the superblock from the spectator: who will get a view of the layout through a haze of greenery. This will have the two-fold advantage of guaranteeing orderly planning, even when the density, category, pattern or architectural standard of individual buildings are of a different quality; and, at the same time, it will provide the inhabitants with shady avenues down which to stroll at leisure, in addition to the open spaces planned for their use in the internal pattern of the superblock.<sup>4</sup>

The strategic relevance of the landscape in Costa's proposal was confirmed a few years later, in 1958, in a debate published in *Δ*,<sup>5</sup> in which Costa affirmed that each 'block must be surrounded by trees', as the overall objective of the project was to see the minimum of houses because: 'We must be prepared to have buildings that have no significance.'<sup>6</sup>

The principles at the origin of the superquadra are not the typological definition of the residential units nor the architectural

**Plan for a Residential Superquadra**  
*opposite:* Although never fully realised, each quadra was originally intended to be surrounded by a 20 metre (65.6 foot) wide green belt planted with a single species of tree, thus differentiating each quadra from the others.

**Lucio Costa, Sketch of the neighbourhood unit, 1950s**  
*below:* The green belt around each quadra was meant to generate a sense of belonging among residents without engendering a closed urban entity.



Through a text (the competition report), a few sketches, and a drawing of the plan of the city, the architect was able to clearly describe at once all that was necessary to initiate and control the development of a city that a few years later would become the administrative and symbolic capital of the country and today its sixth largest metropolitan region.





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#### Classic Neighbourhood Unit

Aerial view of the 'classic' neighbourhood unit (Superquadras 108S, 308S, 107S and 307S), considered as the one that best represents Costa's original conception.

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The only two rules determined by the architect are very different to those norms traditionally contained in urban building codes, as in this case they dictate the relational aspects between the buildings and the open space around them. The height of the buildings, over six floors, led to the definition of the scale of each block, controlling both the quality of the open space and the variation of the number of inhabitants.

---

Plants, trees and landscape acquire a primary role in opposition to what is traditionally intended as the object of architectural design. In this first definition of the superquadra, it is surprising to recall hints of a phenomenological nature, here used to evoke the quality of the spatial experience that can be favoured by the precise articulation and distribution of trees and of the lawns between buildings.

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layout of the buildings (which, within the entire set of materials of the competition submission, are generically indicated as slabs while their planimetric distribution is simply suggested by one sketch), but the system of trees and the composition of the horizontal surface. Plants, trees and landscape acquire a primary role in opposition to what is traditionally intended as the object of architectural design. In this first definition of the superquadra, it is surprising to recall hints of a phenomenological nature, here used to evoke the quality of the spatial experience that can be favoured by the precise articulation and distribution of trees and of the lawns between buildings. Trees placed along the perimeter not only contribute to defining the spatial identity of each block but consequently – through the use of different arboreal species used to create diversity among the multiplicity of the blocks — also set the physical and social dimension of every ‘neighbourhood unit’ by creating an edge which is both permeable and crossable.

In each block, the residential buildings are arranged in numerous and varying ways, thus achieving ample variations of the value of density, ‘always provided that two general principles are observed: uniform height regulations, possibly six storeys raised on pillars, and separation of motor and pedestrian traffic’.<sup>7</sup>

The only two rules determined by the architect are very different to those norms traditionally contained in urban building codes, as in this case they dictate the relational aspects between the buildings and the open space around them. The height of the buildings, over six floors, led to the definition of the scale of each block, controlling both the quality of the open space and the variation of the number of inhabitants. Each building was to be placed on top of pillars because, as explained in the report, the horizontal surface belongs to the collectivity and it must be possible to go from one edge of the city to the other in a comfortable and safe manner. The role of the pillars is to mediate between the buildings and the horizontal datum, to define the ground condition of every unit; their presence grants the right to free movement, provides uninterrupted views and offers a shadowed and protected space from the frequent rains. The land on top of which every building is constructed is defined by the architect as a ‘projection’: private ownership here does not concern the property of the land – whose nature remains public – but its projection, the potential to build on top of a certain portion of land whose nature remains untouchable.

In order to guarantee spatial continuity, the ground floor of each building is the object of a careful landscape design aimed at coordinating the multiple-height levels of the horizontal surfaces: that of the ground,

sloping down eastwards, and the ground floor of each residential building. The coordination between these two surfaces prevents uncontrolled differences between the natural surface of the block and the artificial surface of the pillars, thus avoiding the generation of residual spaces and barriers that would diminish the possibility of views and pedestrian access.

After tackling other complementary aspects (among them, the position of the public facilities, the social structure of each block, the problem of land property in relation to public access and the process of construction), Costa confirms that if the impossibility of a certain level of quality of the architectural object is to be accepted, the coherence of the ensemble is achieved thanks to the careful composition of those aspects traditionally considered complementary. The green belt along the perimeter of every block, the relationship between the landscape and the isolated building, the overall scale of the urban composition, the right to mobility, the simple rule dictating the necessity for every residential building of land on the ground by means of pillars, and the collective dimension of the horizontal plane; these were not only rules for the architects who would build all of the remaining quadras along the city’s residential axis, but architectural devices that define what can be identified as an urban typology.

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**Superquadra 308S, Brasilia,  
Brazil, 1957-60**

Through a very simple abstract elevation  
of the residential slabs in the superquadra  
they become a generic background with  
nature at the forefront.



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*below:* The superquadra 308 was meant to be the prototype for the construction of the other quadras along the city's residential axis.

*opposite:* The trees of the green belt and the pilotis under each residential slab define a continuous public canopy freely used by both residents and visitors.

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The superquadra is not a part of the city whose meaning can be reduced to the relationship it establishes with other urban elements, but a microcity where the rapport between interior and exterior is dissolved in a miniaturised representation of the urban complexity.

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Different from the traditional urban block, which is part of the urban tissue, or in other words an ensemble of buildings organised through a precise logic, according to which to every space is associated a special character,<sup>8</sup> the principles described by Costa in his competition report define a new urban entity able to foster new ways of living. The superquadra is not a part of the city whose meaning can be reduced to the relationship it establishes with other urban elements, but a microcity where the rapport between interior and exterior is dissolved in a miniaturised representation of the urban complexity.

Thanks to its exemplary nature, the superquadra could be defined as a prototype. The example is not the 'empirical application of a universal concept, but the singularity and the qualitative completeness that, when speaking of the "life of the mind", we attribute to the idea'.<sup>9</sup> What can be defined as exemplary does not reproduce itself through the normativeness

of command or the prescription of norm, but 'through the authoritativeness of the prototype itself, which is a species made of a single individual'.<sup>10</sup>

Translating this definition to the domains of architecture and urbanism, the superquadra, and also in general terms the pilot plan for Brasilia, offer the constructors of the new capital the authoritativeness of the prototype, whose strength does not lie in the prescriptive character of its rules, but in the exemplary way the model has been consciously composed. The superquadra prototype is not only exemplary of a residential system, but is also the seed of an idea of the city as it offers itself as an example.

This fundamental characteristic of Costa's approach to planning pervades the entire text of the competition report to form the idea of the new capital – a city that is at the same time the rule and model for its future development within the territory of the Brazilian federal district. ▴

#### Notes

1. A few years after its inauguration, the city was described by Lucio Costa as the interaction of four different scales: the monumental scale, the residential scale, the gregarious scale and the bucolic scale. See Lucio Costa, 'Sobre a construção de Brasília', in Alberto Xavier (ed), *Lucio Costa: sobre arquitetura*, UFRGS (Porto Alegre), 1962, pp 342–7.
2. Farés el-Dahdah, 'Introduction: The Superquadra and the Importance of Leisure', in Farés el-Dahdah (ed), *Lucio Costa: Brasília's Superquadra*, Prestel (Munich/ New York), 2005, p 11.
3. Lucio Costa, *Memória descritiva do Plano piloto*, 1957, point 16 (the text of the competition report is available in English at [www.infobrasilia.com.br/pilot\\_plan.htm](http://www.infobrasilia.com.br/pilot_plan.htm)).
4. Ibid.
5. Lucio Costa, Arthur Korn, Denys Lasdun and Peter Smithson, 'Capital Cities', in *AD* 11, November 1958, pp 437–41.
6. Ibid.
7. Lucio Costa, *Memória descritiva do Plano piloto*, op cit, point 16.
8. See Philippe Panerai, Jean Castex and Jean-Charles Depaule, *Isolato urbano e città contemporanea*, CittàStudi (Milan), 1991, pp 122–3.
9. Paolo Virno, *Mondanità. L'idea di mondo tra esperienza sensibile e sfera pubblica*, Manifestolibri (Rome), 1994, pp 105–7.
10. Ibid.

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