

Paulo Mendes da Rocha 2006 Laureate Essay

Paulo Mendes da Rocha: Listen to and observe a master

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"Unlike many people who are afraid of poverty, I have always been attracted to it, to simple things, without knowing why. Not hardship, but the humility of essential things. I think everything superfluous is irritating. Everything that is not necessary becomes grotesque, especially in our time."

Paulo Mendes da Rocha, *Cultura y Naturaleza* in Helio Piñón, *Paulo Mendes da Rocha*, Escuela Técnica Superior de Arquitectura de Barcelona (ETSAB), Barcelona, 2003

Toward the end of the 1950s the first photographs began to circulate of the Paulistano Athletic Club Gymnasium, (Ginásio do Clube Atlético Paulistano), which had been recently built in São Paulo by Paulo Mendes da Rocha. They showed a unique, disturbing construction: on top of a suspended platform you could see six slender concrete blades, with elegant profiles and elemental forms. The blades rested on the platform and were attached using a minimal surface area for the union, almost a single line. They were triangular in form and the long side of the isosceles triangles supported a remarkably slender circular roof made with pre-stressed, reinforced concrete. Those supports, all equal, extended beyond the roof line; cut diagonally to make the overhangs more evident thanks to the exposed corners. They supported twelve cables to which a steel cap was attached, detached from the ring of the concrete roof of the gymnasium below. Constructed of exposed concrete, the entire building seemed like the result of a skillful balancing act made possible by an ingenious structural concept, destined to open up new prospects for research and experimentation which would be later carried out by Brazilian architects.

At the time, in 1958, Paulo Mendes da Rocha was thirty years old. Even more than from his university studies, the lesson he put into practice in the gymnasium came from his father, an engineer and designer of hydraulic works and port facilities. For Mendes da Rocha, as he explained once while speaking about the Portuguese Pavilion for the Lisbon Expo by Alvaro Siza, "learning is not imitation, but a matter of learning how to think". He likes to say his father taught him to respect *technique*, giving the word a predominantly constructive meaning, using it as a synonym for structural coherency. "Architecture is doing not seeing, making not impressing, blending reason and freedom" resulting in an architecture that is extremely concrete, sound, and with reduced the meanings of expression. This lesson was enriched thanks to his association with João Villanova Artigas. After graduating with a degree in 1954, Mendes da Rocha worked with Villanova Artigas at the Department of Architecture of the University of São Paulo from 1959 until the advent of the military regime that forced the two to abandon teaching, Artigas reinforced Mendes da Rocha's conviction that architecture must be practiced in "*sua dimensão humana*" guided by a commitment to society, the times, life, using the tools at hand, and in awareness of the fact that "you can never build anything finished".

In spite of adversities throughout his career, and the trouble during the recent history of his country, Mendes da Rocha has put his name on many works and projects that have contributed to make Brazilian architecture one of the liveliest and original expressions of the architectural culture of the second half of the twentieth century. Among the many works we can mention are the Villa Maria school at José dos Campos (1962), the Brazilian Pavilion at the Osaka Expo in 1970, the Saint Peter Chapel (Capela de São Pedro, 1987) at Campo do Jordão, the Forma showroom (1987), the Brazilian Museum of Sculpture (Museo Brasileiro de Escultura, 1988), the Itaquera Public Service Center (Poupatempo Itaquera, 1988), São Paulo's State Museum (Pinacoteca do Estado, 2003) and the organization of the Patriarch Plaza (Praça do Patriarca, 2002) in São Paulo, as well as the Mendes da Rocha, Mazetti, King and Gerassi houses, built starting in 1960 also in São Paulo, his residential projects, and the many urban planning projects (such as, the riverfront city of Tiete, 1980, or the Bay of Vitoria, 1993).

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Faced with different topics, Mendes da Rocha has simply developed what had already been announced in the Paulistano Athletic Club Gymnasium. Proof can be seen by comparing works mentioned above with the most recent construction (shown in *Casabella758*) of the Park School for Art and Science (Sabina Escola Parque Do Conhecimento) designed in 2003 and completed in 2007. The building stands in the town of Santo Andre in the state of São Paulo. It contains a science museum, exhibition spaces, and different zones for educational activities. Its objective is to expand and complete the educational opportunities offered by the local school system. The construction is close to the street that surrounds an urban park, which is bordered by poor neighborhoods that may seem excessive to define as residential.

From the parking area one enters the museum along a ramp that leads to an underground tunnel along which service spaces are organized. To enter, one must descend through the entrance which is arranged to fit the morphology of the site. The entire building seems to conform to the curves of the terrain, "to make the geography architectonic", Mendes da Rocha might say. The building appears as a taut, oblong parallelepiped, devoid of commentary. Actually, what one observes at first glance is the continuous elevation of a long beam whose supporting points are not visible. Approaching the entrance, one sees that the beam rests only on three triangular supports, while the two ends are each cantilevered about twenty meters. The thickness of the beam corresponds to that of the interior spaces and the end offers a view of its deformed H section. On the opposite side of the building, the beam is double, so that between the two long lateral elevations there is an internal space, measuring 160 x 30 meters and segmented at different intervals. The water collected by the roof is discharged into the sections of the two beams and then runs into four fountains located at the edges of the construction.

Openings have been placed only on the smaller sides of the building. The light sources for the interiors are contained in the interstitial spaces between the wall containing the beam and the internal partitions. This is a solution similar to one already used by Mendes da Rocha, as early as 1960, in his own house built in São Paulo. Natural light, therefore, flows into the spaces of the building from below, thanks to the reversed skylights that project light at different angles on to the inclined surfaces of the internal partitions. In turn, the lighting creates an evocative promenade on the circulation ramps. The structural concept is disarmingly simple and its form is enhanced by the compositional solution developed by the architect. It is not hard to find an immediate precedent for this more modest educational museum in the magnificent Brazilian Museum of Sculpture (Museu Brasileiro da Escultura–MUBE) inserted by Mendes da Rocha in a park organized by Roberto Burle Marx in São Paulo in 1988. However, it should be noted that the Park School contains a significant variation. In the MUBE, in fact, the two extremities of the beam without opening that contain the exhibition spaces rest on two slender partitions sized to correspond to the section of the volume they support. In the case of this museum, on the other hand, the supports touch points, and the beams overhang in an aggressive way. The resulting effect is that the cantilevers transmit the impression of surprising lightness, offering a mature example of what Mendes da Rocha pursues, and explains by talking about the "*visão poética sobre a forma que ultrapassa a estrita necessidade*" (*the poetic vision that goes beyond strict necessity*) as the goal of his work.

Another demonstration of how Mendes da Rocha continues to update his compositional approach by constantly reworking previous experiences and solutions is also seen in the MUBE. The light sources are placed below the beam, corresponding to a series of openings made in the suspended slab. The same reworking of ideas applies to decisions of a more clearly structural nature. If we observe the working drawings of the section of the educational museum, for example, we can see its relationship with those made by Mendes da Rocha for the Terminal Rodoviário de Goiânia in 1985, where the suspended beams are connected by the roofing formed by slender steel trellises, and support large overhanging wings. In a similar manner, the overhangs of the ends of the volume of the educational museum reflect a theme approached with unusual decisiveness in the drawings prepared by Mendes da Rocha for the Center for Early Childhood Education (Núcleo de Educação Infantil do Jarima Calux) in San Bernardo do Campo, 1972. If we want to identify the most radical manifestation of the architect's

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almost instinctive attraction to the theme of cantilevered elements, we can look at the Saint Peter's Chapel (Capela de São Pedro) he built in Palácio de Boa Vista at Campos do Jordão in 1987. Moreover, the iron roofing supported by elegant, utilitarian and very rational steel beams of the educational museum has a clear precursor in the Itaquera Public Service Center (Poupatempo Itaquera) of São Paulo, 1998. Is it another of the works in which Mendes da Rocha offers thorough evidence of his abilities: "*Arquitetura não deseja ser funcional, mas oportuna*" (*Architecture does not want to be functional, but appropriate.*)

A study that only aims at grasping recurring themes in the works of Mendes da Rocha may be useful, but it has limited significance and does not permit us to understand the most original aspect of his work. At best, this type of research can help to identify the origin of approaches in which that truly unique "elegance of poverty" takes form, which the architect has made into a signature of sorts, countering external pressures with intellectual consistency. His coherence, however, springs from a conception that elegance cannot fully express. For him, the fundamental tool that can be used by architecture is *technique*. And it is in relation to the possibilities that technique makes available to the architect, or more precisely, in relation to the thinking behind it, the "*rigor da técnica que tudo fique em pé*" (*the rigor of technique that everything remains standing*), that we can measure the quality and meaning of his works, their capacity to unfold "*pela poesia e pela história, na imprevisibilidade de nossa existência*" (*from poetry and history, the unpredictability of our existence*). As Mendes da Rocha knows, technique is continuous refinement. It teaches what can be observed with clarity in his works, and what they, in turn, can teach us; he who relies on technique can hope to gain advantage from it only by knowing that one has the possibility of inventing only by thinking of technique and knowing how to use it without fear of repetition, in the search for what is essential.

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