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The Polana High School

The Polana high school in Maputo is located on the East side of the reference axial road called Avenida Kim Il Sung, but differently from the correspondent square urban grid, that lays parallel to the coastal line, the building assumes a North/South direction to organize the sequence of volumes, which constitutes the school. Anyway due to the extent of its pertinent plot, looking at the area map, what initially appears only as a manifest indifference to the surrounding urban fabric, it can then also be interpreted as a way to take hold of the ground as if the building had been freely placed upon it.

The school had been designed by José João Tinoco and José Forjaz around 1970 and its construction started in 1973, but at arriving of independence it had not yet been completed, due to the lacking of the sporting practice sector.

The structure can be easily described as a series of classrooms blocks that are placed and connected on the both sides of a central corridor; which terminates on the North side with the special volumes of the auditorium of the library and of the canteen; while on the top South side, where also the entrance is placed it is to be found the administration wing. Such central corridor is simply constituted by a totally open portico, that is almost acting as shading protection for the path linking all of the various classroom pavilions; in those latter the same portico motif, intended as the functional connection with the pavilions is then prolonged as a side extension so as to arrive to shape the North side elevations of the pavilions. In this way a full and multilevel comb network of servicing spaces has been defined, so as to maintain a constant relationship with the open spaces and therefore to take advantage of the above mentioned free disposition of the building within its isolated plot of land.

It also worth to be mentioned that at the middle of its extension the central corridor roof spans largely from the pillar support lines, so as to generate a covered square; again a privileged relationship between the construction and its pertinent ground it is here affirmed, to organize -in this case- a special social space within the functional organization of the school.

The building is mostly made of exposed reinforced concrete structures and elements; i.e. the load bearing system but also some accessorial parts that may come out of the structure, such as the benches along the corridor or that other very significant element for the classrooms blocks, that are the vertical sun breaker elements that are flags like

placed all over the South side elevations to protect the underneath fully operable glazing surfaces from morning eastern and afternoon western radiation. With respect of the same sun protection question it is to be said, that on the North side elevations of the blocks the veranda like extension of the servicing stairs and ramps spaces assumes that same function.

The inclined roofs of the blocks were covered with asbestos cement undulated plates; so that the only differing color parts within the whole result the walls infill parts, that are whitewashing painted.

The building lived very well of its simple and efficient organization and its material roughness, for several decades; but in the recent years the concrete structures had began to demonstrate some serious problems of breaking up, some of them due to the corrosion determined by the prevailing coastal winds and some others determined by internal percolations of reflux waters. Severe corrosion problems concerned also the metallic operable sashes of the glazing surfaces and more dangerously even the steel fitting supports of the heavy vertical sun-breakers concrete panels.

At the beginning of 2012 a Chinese building firm, within a cooperation program of them, had offered to the Mozambican Ministry of Education the execution of some recovery works for the building.

Just to give idea of the attitude of these interventions it can, for instance, be related that the widespread concrete splits have filled up with proper epoxy resin; the steel fitting supports of the vertical sun-breakers have been replaced with similar but bigger ones, and finally that the roofs covering asbestos cement undulated plates have safely been replaced with *IBR* (metallic and polyethylene) sheets colored in red (while also grey is an available possibility for this material).

That is just to exemplify that all of the interventions that have been put in place were measured according to a strictly pragmatic logic, exclusively aimed to maintain (no matter in which way) the building in use (for the present moment). But beyond any possible critics that could be advanced about the single and specific repair solutions, it can be observed that the real problem of the whole recovery operation has been that of the lack of a general plan, i.e. the work has been simply defined and organized as a list of isolated interventions (specifications tender). And it is possible that some of the causes of the degradation problems might not have been recognized, and that therefore their solution could be only temporary, due to the permanence of the original problem.

In this sense, within the global number of our case studies, the Polana High School represents a specific importance, that is not only due to the straight quality of the building, but that also have to deal with what could be today effective conditions economic possibilities and cultural problems for recovering such modern heritage value buildings, that even if solidly constructed, have constantly supported an heavy duty use in the almost absolute lacking of maintenance.