Le Corbusier’s Venice hospital: much more than a mat-building

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Le Corbusier’s Venice hospital was identified by Alison Smithson as a mat-building. Many authors have studied the project from this perspective. This article proposes to go further and understand how Le Corbusier revolutionises his own architecture, creating a horizontal building, of courtyards and zenithal light, which becomes a piece of the city that recreates in its different levels diverse urban morphologies that thereby conform a new Unité.

Le Corbusier relates the spiral square in swastika developed in some previous projected museums, a form which in itself already expresses the possibility of unlimited growth. However, although the plan form of the hospital’s unités may have some similarities with the plans of previous projected museums, its spatiality is radically different. The hospital is formed by the addition of these unités, building thereby an organisation capable of merging the attributes of the traditional and modern city in a game of solids and voids in plan and section.

The most important of the three images of the Orphanage selected by Alison Smithson for her article “How to recognise and read mat-building” (1974) is an aerial view of the building still under construction. Taking into account that the Orphanage had been finished since the end of the fifties, it appears that the author preferred not only this particular point of view but also this stage of the building project, to underline its mat condition. In reality, there is a strong dissociation between the open plan that the reticular framework of the roof seems to suggest, and the concatenation of enclosed spaces on the ground floor. As van Eyck describes, the Orphanage’s formal structure is based on dualities and contrapositions. To reconcile these conflicting polarities he uses the concept of the in-between, creating spaces that, according to their scale, convert the act of passing from one area to another into an experience of its own, giving more depth to the building. Meanwhile the building can be understood as an enormous porch that covers a series of interior endocyes and delimits the children’s habitable space. This interpretation of the building being planned as an exterior playground points out at the gamut of small architectural objects and places that van Eyck disposed as a platform for those secret and necessary things that all children should be able to do. These marvellous affords and situations played an important role in conceiving this project and they have been consciously placed in relation to the main structure, modelling a toponography on the floor level that, together with the domed space of the interior ceiling, accentuates the vertical dimension in a building where the horizontal relations dominate. The article tries to give a personal insight to the Orphanage, both text and drawings analyse and raise some specific aspects of the project, imagining the building as a textile pattern while exploring its extension possibilities, a porch with a bulky upper part that covers a group of curious objects or a temporary and modular construction analogue to a circus.

During the sixties and seventies, Herman Hertzberger designed and built several buildings that later became part of what Alison Smithson called mat-building. Centraal Beheer is one of them. These offices clearly show certain order and organization strategies common in this type of buildings. The article focuses especially on two of them: the form generation from units or autonomous modules, and their specific grouping according to certain geometric and adaptable constructive structures.

With regard to the first, it should be emphasized that these offices are related to the modular extension buildings, characterized by a so-called unlimited growth based on the repetition of the modules. However, Hertzberger goes a little further than his peers and also makes the module a constructive, spatial and functional core. Constructive rationality and repeated geometric form are not reserved exclusively to a part of the project and generate continuous spaces for private use and convex spaces for movement and relationship. This exceeds the open plan as a neutral universal framework capable of accommodating a plurality of uses, and transforms it into a space based on a prior and autonomous formal and structural order.

The second strategy has a clear implication in the volumetric size of the building. As the architect suggests, weaving or knotting operations, identified with the warp and woof, seem to be at the base of his projects. To these formal operations, also present in Van Eyck and Kahn buildings, are added stacking or overlapping. In fact, we associate the mat-building with an infinite and horizontal development. In Apeldoorn, the vertical growth of the modules is added to the above-mentioned development, and not by means of a work section, but by the overlapping of spatial units likely to be stacked.

Those secret and necessary things
The Orphanage from Aldo van Eyck

Ariadna Perich

Weaving and stacking as order mechanisms

Daniel García-Escudero