

# LE CORBUSIER'S 'ÉQUIPEMENT' AS PATTERN FOR DESIGN LANGUAGE

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## ABSTRACT

This paper highlights the autonomy of design language to appropriate concepts such as 'équipement' (essential elements for space equipment) by Le Corbusier (1920, *L'Esprit Nouveau*), interpreted as pattern (subsystems) by Alexander (1963, *A Pattern Language*). This discussion is involved in a current PhD Research Project in Design, proposing new configurational possibilities for building surfaces in the 21st century. The rationale for interpreting the logic of 'équipement' presents the 'pattern' system as design's response to decline the industrialized city proposal in favour of liquid modernity (Bauman).

As interpretation model we present an analogy between the project 'The Philips Pavilion' (1958) by Le Corbusier, and the project 'Gazebi' (1967) by Archizoom Associati. Two cases responding to specific realities, favouring constant mutation typologies in building surfaces and respective mutation in the interaction with the user. This

research aims to contribute towards the argument that the project of configurational proposals advocates design participation as key methodological tool in the development of the matter of city surface. The user is the interlocutor interpreting the city, living it and transforming it while construing the own existence.

## INTRODUCTION

This texts aims to demonstrate the competence of design language to appropriate old concepts and to interpret them according to a new reality. The first section of the text analyses and relates the concept of 'équipement' by Le Corbusier and the concept of 'pattern' by Christopher Alexander as pattern connotations (order) oriented towards the project of buildings surface. In the second section we analyse two different case studies in buildings surface, namely from Le Corbusier (1958) and from Archizoom Associati (1967). Both of them establish the grounds for our initial argument regarding design. Through these projects we intend to ponder on the interpretative proposal of the respective creators, regarding the surface nature as model for renewal. We conclude that both *équipement* and *pattern* are ultimately interpretations concerning a constructive order, manifestations of a system of thought. In liquid modernity (Bauman), the construction issue is interpreted by design language as undefined pattern and without a form of its own to allow the project of the building surface matter, assuring that the individuals

imagine the city as a place to live instead of a transient space. We henceforth clarify.

## THE CONCEPT OF 'ÉQUIPEMENT' AND THE CONCEPT OF 'PATTERN' AS CONSTRUCTIVE ORDER CONNOTATIONS IN THE PROJECT OF BUILDINGS SURFACE

As concept applied to the Project of buildings surface, the *équipement* concept relates to design's language. Historically, the phenomenological origin of the term refers to the manifest of the *L'Esprit Nouveau* (1920) by Le Corbusier. The proposal by Le Corbusier constitutes an action demanding the amendment of constructive values and project maker's *modus operandi*, taking into consideration Western Europe's characterization, in need for rebuilding after World War I. As advocated by Le Corbusier: "an era creates its own architecture, which is the clear image of a system of thought." (Le Corbusier, 2008: 147). Therefore, when in 1925 Le Corbusier designs the pavilion for *L'Esprit Nouveau* for the *Exposition Internationale des Arts Décoratifs et Industriels Modernes* in Paris, he intentionally refuses some of the traditional instruments for households, such as wooden furniture (which for Le Corbusier was unnecessary, costly, spacious and needed maintenance). As stated by Le Corbusier: "We must work against the old house that misused space. We must (present necessity: low net cost) look upon the house as a machine for living in or as a tool. When you create an industry, you buy the equipment; when you set up house, at present you rent a stupid apartment." (Le Corbusier, 2008: 266). The pavilion *L'Esprit Nouveau* was designed as a system of equipments, using standard-elements to be assembled as office cabinets. A machine for inhabiting that employed new materials as glass or iron, new technological achievements and industrial production from that age. Applied to the project of the surface of buildings, the notion of *équipement* as standard-element to equip a space assumes the connotation of pattern, or of new order, as answer to the problem of building. As Le Corbusier referred: "The standard for the house is of a practical order, a structural order." (Le Corbusier, 2008: 185), therefore, as proposed by Le Corbusier, furniture is replaced by wall compartments, revealing a new reasoning. With Le Corbusier, the introduction of the horizontal window as one of the five parameters for a new architecture reflects his interest on the project of the buildings surface. The architectural surface resulted autonomous to the interior, connecting housing and external scenario. From these reflections, we may conclude that the notion of *équipement* is connoted to the architectural order Le Corbusier uses in the design of the building surface. Such as the *pattern language* by Christopher Alexander (1963) connotes the pattern to the building order, but for what was reality in the 60's.

The phenomenological origin of the term *pattern language* took place as a contribution to the history of design method. In the early 1960's, the urge for

projectual change is reported in England as the need for an increasingly sophisticated scientific approach to design method, through authors as Jones & Thornley (1963) or Alexander (1963). It was a proposition for a society characterized by transience and new patterns of consumption, fitting a younger population. For Christopher Alexander, 'pattern language' consisted in splitting projectual problems into patterns, enabling the solution of some of the project's subsystems. Alexander's proposition consisted of identifying and solving subsystems that constituted the project's complexity and also in connecting every subsystem's patterns among themselves and the user; "This means you must treat the pattern as an 'entity'; and try to conceive of this entity, entire and whole, before you start creating any other patterns." (Alexander, 1977). Such as we analyzed Le Corbusier's projectual standing in the case of the pavilion *L'Esprit Nouveau* (1925) and confirmed in the definition of other projects, as the Philips Pavilion (1958), the case of the projectual action from Italian groups in the 60's will hold as reference the 'pattern language' by Christopher Alexander. As advocated by Alessandro Mendini (1969, *Metaprogetto, si e no*) in the editorial of the magazine *Casabella*, the moment for projectual pondering was understood as an indirect formalization projectual behaviour. This meant the main problem in the project was the idea of making something reproducible, so that in a second stage it would become form. To consider the constructive order of the building surface as a pattern-system meant considering the body-surface as open and infinite prefabrication elements. In methodological terms it was a reference to the logic of numerical *patterns* by Christopher Alexander whereas surface of the city.

## DATA EVALUATION

### LE CORBUSIER AND THE PHILIPS PAVILION, 1958

With the advent of rationalist architecture in the early years of the twenties and mainly with Le Corbusier, the project of the surface of buildings, such as façades, presents itself as an extremely modular element in which the use of concrete allows opening new panoramas to define inhabiting. But the use of the façade as a means to communicate is even more manifest in 1958 when Le Corbusier designs the Philips Pavilion in Brussels. This project is characterized by a membrane able to communicate the building in its essence of place for representation, among music, space and image. Le Corbusier, in his projectual statement preceding the project execution, emphasizes the idea of conceiving a work where different components, audio, visual and spatial, could merge: "I will not make a building but an electronic poem in which color, images, rhythm, sound and architecture will merge in such manner the public will be totally captivated by what Philips makes." (Capanna, 2000). Designed in collaboration with the architect, theorist and composer Iannis Xenákis, the pavilion is transposed into a showplace articulated among space, images and sounds,

entitled *Poème électronique*. Iannis Xenakis plays an important role in defining lighting systems and projection effects which merge into the space articulation, resulting in a mutable, ever changing show, in continuous transformation for users: “The surfaces dominated by hyperbolic paraboloids that determine the building signed with Le Corbusier but of whose revolutionary conception and performance the composer alone is the author, are themselves already music to be seen, a petrified spectacle, pure abstract forms singing, continuously offering the visitors ever changing perspectives depending on the angle they stand from or movement.” (Restagno, 1988). Le Corbusier applied the same method he had used 30 years before, but changed the methodology, now adapted to the new communicational premise. The designer’s construal regarding Philips results in his interpretation of the ‘équipement’ concept as pattern, since in 1958 Le Corbusier was not concerned with Philips objects, but instead with Philips system, mechanisms, electrics, communication.



Figure 1: Le Corbusier; Iannis Xenakis; Edgard Varèse “Poème électronique: Philips Pavilion”. Source: <http://www.arch.mcgill.ca/prof/sijpkex/expo/composite.html>.

#### THE ARCHIZOOM AND THE PROJECT GAZEBI, 1967

The Archizoom group was concerned with the urban activity social flows and consumption exchanges. The Florentine group was created in 1963 but the pop phase overflow took place later, in the second half of 1967, namely in the interpretation of the Gazebo theme: “Designed as temporary structures for the garden, Gazebos are transformed by Archizoom through Dada devices to create enigmatic interiors, literally closed and neutral spaces to accommodate allegorical shifts obtained through juxtaposed common objects.” (Lampariello, 2008). The project consisted of six Gazebi, acting as a social weapon during the Six-day War to propose the encounter of Arab and Jewish cultures. This was also an attempt to express a culture that emerged at that time as an alternative to the hegemonic phenomenon caused by the USA and Europe’s presence. From the outside of each Gazebo, the perception was that the Gazebi were all alike. Entering each of them, the theme assumed the

complexity of typological elements crossing in a metaphor for society in the late 1960’s. This project reflects Bauman’s modernity (*Liquid Modernity*, 2005) in which the individual complies with momentary symbolic answers and in which ‘liquid’ is the state of the matter with no shape of its own, which is never kept the same, that is flexible and that assumes the form of whatever container it meets. Gazebo is also the best project in reflecting the legacy of Le Corbusier and Mies van der Rohe for Archizoom, and the urban surface theme starting in the logic of patterns. “Gazebi are elementary spaces – the Dominoes from Le Corbusier – reduced to a simple metal structure surrounded by curtains assuming the role of walls, forming a rectangular room. These elementary and neutral containers acquire meaning through the objects placed in their interior.” (Deganello cit in Milano, 2009:83).

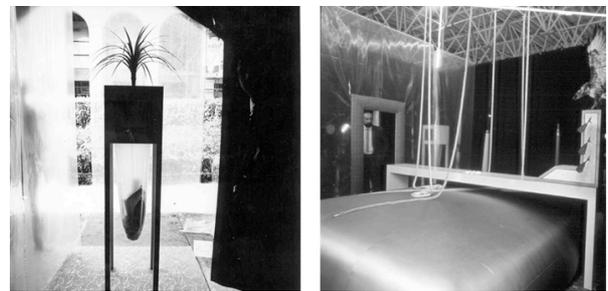


Figure 2: Archizoom Associati, “Gazebo Centro di cospirazione eclettica”, XIV Triennale di Milano (1968). Source: <http://www.andreabranzi.it>

#### RESULTS

The architecture that interprets itself keeps on denying the reflection on the problem of construction in its time and therefore the constructive order still holds the interpretation of Vitruvius or Vignola. Yet, the enigma of construction may be interpreted by design language. In the case of the project of buildings surface it means considering an imprecise standard-element, with no shape of its own, and ephemeral, adapting to the container it meets. Through Philips Pavilion, Le Corbusier appropriates technology’s complexity to create a universal system through a hybrid language between music, image and pattern, to create electronic poetry, stemming from interdisciplinary and oriented towards an audience/viewer. The Archizoom’s Gazebo may be envisaged as a projectual reflection starting from the idea of Le Corbusier’s *Maison Domino*, offering new configurational possibilities for spatial enclosure. The disconnection between internal and external found in the Gazebo may be design’s answer to relate and simultaneously open the project of a space to new experiential contributions. The designer that projects the object surface of building previews answers that overlap in coatings, cyclic solutions easily renewable, replacing perennial solutions for disposable hypothesis. An understanding that assumes the cultural value as competence able to supply knowledge and

aesthetical experience to the user lost in his consumable society.

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