

# Virtual re-costruction of the Le Corbusier's "maison Citrohan"

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The "maison Citrohan" of Le Corbusier is an emblematic example of an architectural criterion based on mechanic, geometric and platonic principles where innovation, metropolitan aspects, classicism and mediterraneity are melted to produce an architectural object as result of the new spirit of the time, that means "esprit de geometrie". The house is a pure parallelepiped result of the metropolitan modern spaces of the urban café and studios with the double space and the transparent front, and besides it derives its configuration from the old mediterranean house "megaron". Of this house Le Corbusier studied various versions: in 1920, in 1922 and at the end in 1927 for the weissenhof, where he proposed a type as expression of the five points of his architecture. The Citrohan was a type-house, a standard-house to use in various contexts for everybody.

This work tries to present a technical-practical and theoretical-conceptual methodology to deal with the topic of digital re-costruction as "open work", that means to work with drawings as representation tools without the end of material costruction (re-costruction of un-built architecture). The traditional representation becomes the basis for the digital work, structured on layers that articulate a new dimension of reality that is the digital condition for a new kind of visitability and habitability of space. Virtual reality is a new kind of dimension articulated on BITS and not as usual in ATOMS, where instead of separated and fragmented moments of a visual representation that mediates reality, we have simultaneous actions between original and copy, an instantaneous event formed by pixel.

This criterion transforms the representation as medium between a code and its material realization to an event in itself, as a codification of a music event that unify the dimension of space and time. We could classify a traditional representation as an ideal and meta-historical order that is expressed in a hierarchical, mono-directional and univocal system (perspective order), a modern representation that tries to follow a geometrical, evolutionary and mechanical order that is expressed in an abstract and not hierarchical system of stratification and a digital condition as dynamic and simultaneous expression of inter-action and immersion. This aim requires an historical-critic methodology that analyse the topic with an archaeological vision, that means to operate on the traces of a positive archaeological culture. In a dialectic comparison with the typical imitative procedure of the academic tradition of the "ecole des beaux arts", thinking about the relation copy-original in a dimension of platonic "mimesis". The digital model (architectural micro and macro cosmos) becomes a new type-structure that is not within a traditional iconic and replicative (in scale) modeling, but it requires a strong "inter-action" with images in real time and "immersion" with synthetic stimulus generated by computer. The virtual model is composed in 3 main steps of generation. First is the "modelling" (think design by CAD), where the main geometrical structure is formed by editing of bases geometries and layering of systems. The second step is "representation" (rendering) where materials, textures and lights are associated to the define geometric model defining the image. Last phase is the "connection", where the model is considered as space-time event generated in virtuality as free perception of the user-operator.

All this to define a method to operate re-costruction of various un-built projects to discover hidden qualities of architecture.

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After having took my diploma of scientific liceo in 1987 I became architect in 1994 with a degree in architectural design (University of Florence) whose topic was the "City of Pistoia urban gate – Technopark". In 1996-1997 I spent my time in London following the Master in architectural design at the Bartlett school of architecture (University College London) with director prof. Peter Cook. After the Master (took with commendation returned to Italy where I worked for various studios such as Massimiliano Fuksas and Lucio Passarelli in Rome, some studios in my city, Pistoia and in Turin as Andrea Bruno.

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In a continuous balance between theoretical search and practical work I have participated also at many competitions with a second position (mention) at the European 7 in the city of Pordenone, at the competition for a square in the city of Frosinone and at a competition for an urban area in the city of Pistoia. Besides I was selected for the participation at the Biennale of Venice in 2000 with a project for an urban park in Rome and I have written some articles for the architectural magazines Arca and Metamorfosi. Currently I am following the doctorate in architectural design at the Politecnico of Turin in Italy.