

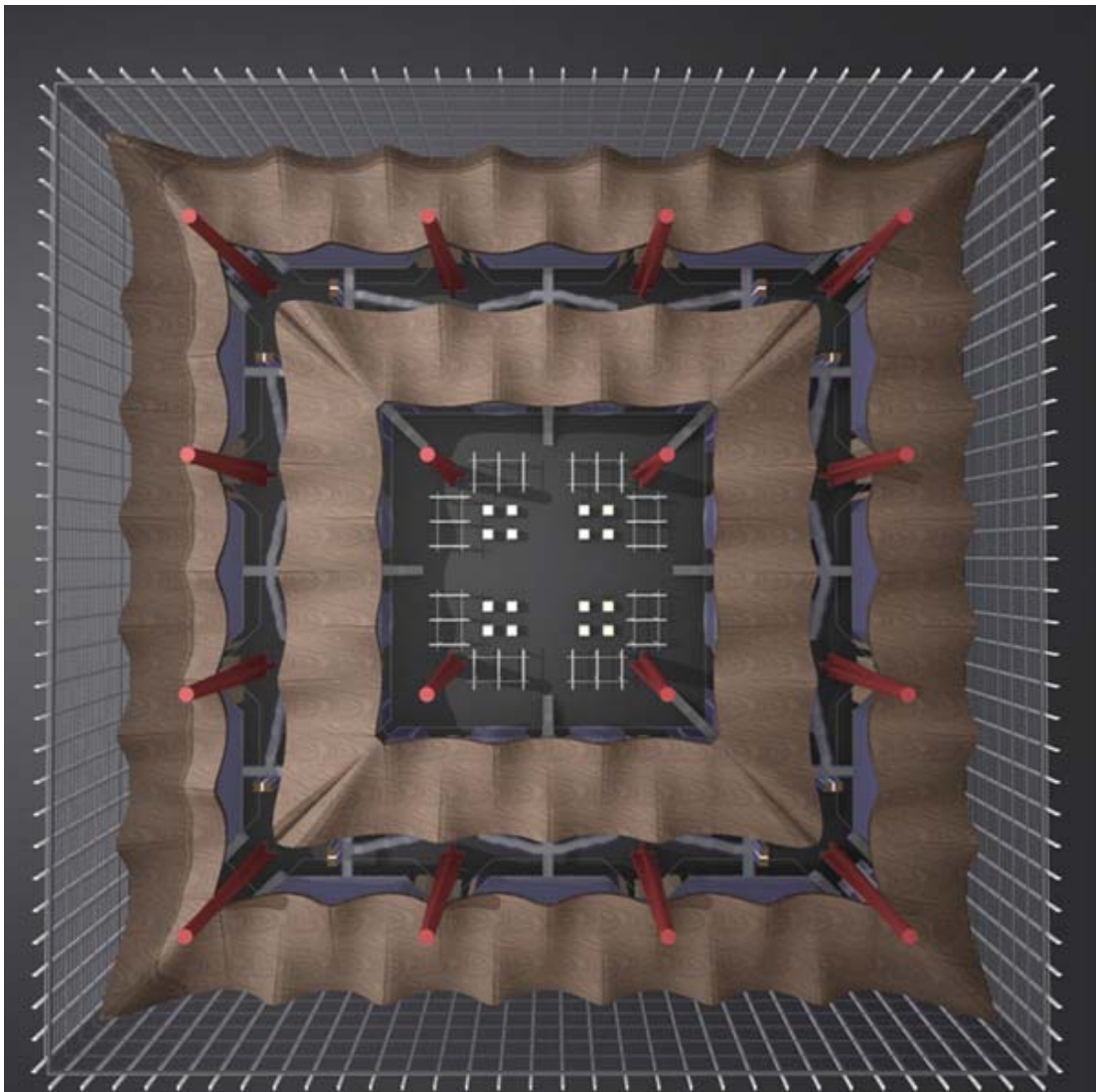
Natural light as element for the project riutilization and riqualification of Palazzo del Lavoro

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If one day one intends to become an architect and looks for a challenge, he can easily find them on Palazzo del Lavoro, situated in Turin and designed by Pier Luigi Nervi for the commemoration of the first centenary of the Italian Unification. 16 strong pillars with mushroom shape with a metallic coverage shelter a square layout of about 11.000 sqm while 128 metallic steams support a window wall that connects the coverage to the stiffened perimetral loft at a level of 5.20 m.



But immediately beyond the superficial analysis start the discovering features: behind the history of its realization (and its decline) a spirit of an entire generation of architect now disappeared starts to show up. P.d.L, in fact, tells the real history of an optimist and industrial Turin, that believes in a future made of technology, work and human relations. The problem that the architect has to face when there is a need of re-conversion are often complicated. Unable to restore the building to its original function there is a need to find compatible uses that means create the possibility to allocate activities that do no damage the historical material and harmonize with the form and dimensions of the building.



The choice falls on a centre for the design that spans from the teaching of the technicalities to the commercialization of the product with several show rooms and services to the public. The choice seems to appropriate for a town in a full conversion process from industrial to services, without omitting that Torino will be host to the World Architects Congress of 2008 and will be in the same year city of design. The thesis considers 3 principal aspects:

1. the physical evaluation (performed with the use of software Radiance, Ecotect and Lightscape)
2. architectural project
3. historical analysis

At the present state the building is characterised by very low temperature in winter and very hot in summer, with dark spaces consistently conditioned by perimetral balconade, in addition to a distribution layout traced over 16 pillars.

The analysis allows immediately to individuate on the storeys superior to the ground floor, built after exhibition, one of the major defects of the building: the light struggles to enter the interior and the space remain unusable. Amazing have instead been the results of the exams made on the glass walls. The louvers have been placed in excellent way and their incidence seems to be the result of a study made with the most modern computer systems. To contrast the chronic lack of light and to revitalise the entire building even in the core of its pillars a new series of skylights have been set on the coverage, that integrate with the original structure. At this point, with sufficient light and made free of useless additions P.d.L could be filled with new elements.



A project work is a long process that involves several variables, consequently we will limit our analysis to the guide lines that had taken us to the final project. They are reversibility, plurality and easy to recognise. The recognisability is a humility act due to the old building. All the new construction have been imagined with curved forms and materials diverse from the originals (concrete for P.d.L, wood and glass for new structure). No new realization goes over two storeys in order to maintain the arious and powerful aspects of the building and give to the central portion of it. Reversibility is to recognize that nothing endure forever, even in architecture: the structures adopted are in wood or other light materials, easy to desment and eliminate in case the future needs make useless or obsolete the centre for the design.

A reversible project consist in the capability of correcting and error, if this come out in the course of use. The plurality can be found in the multiple function inserted in the unit: school, professional offices, exhibition areas, trading. Finally, the whole materializes in “waves” and “shells” that fulfil the ground floor of the building of which we leave the description to the pictures.

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