

Building illumination

Starting a debate on artificial lighting in a journal dedicated to architecture may appear to be futile or a problem of utility plants. This is not just light years from the actual facts but anyone who thinks along these lines portrays poor information regarding the specialization in the architectural area which in more advanced countries, is well-established, planned and programmable.

Over the 24-hour period, for variable periods of time, Man in the absence of day-light becomes blind, and when he finds himself in an enclosed environment, the moon and the stars can do little to ease his sense of disorientation. So artificial illumination, fire and lighted torches the first examples, has always been used to prolong man's visual control of his surroundings. With the evolution of civilization, it was seen that artificial illumination created an atmosphere that was totally different to that with daylight. And even though the body rhythms followed those of the sun, man started combining the ancestral need for artificial lighting with esthetics, to illuminate our buildings, its rooms and its parties - for pleasure and not just for physiological needs.

Our condition of partially "blind" has stayed unchanged, but with the advent of electricity and then with the light-bulbs, we have acquired a practical and relatively long-lasting means which allow us to be bathed in artificial light where, how, when and for as long as we want.

The cost of the energy is often the difficult down-side of the issue.

Having the technical means that permit, we can esco-

pe completely from the dark, and in doing so indiscriminately, we increase our fear of the dark because we are increasingly less used to seeing it, and we find ourselves completely immersed in artificial light. In order to give a greater sense of security to his people, every town mayor installs increasingly powerful street-lighting, every shop entry is a fountain of light, every façade appears to be an advertising sign. It is obvious that under these new conditions of savage permeation by artificial light, we need to return to a discipline that allows us to perceive architecture, a monument, a garden a store, a room in all its objective individuality. Architectural lighting does not mean adding random theatrical effects. It just means enhancing what exists already, making it more easy to perceive and interpret with carefully studied systems.

In architecture in Italy - both interior and exterior - the lighting systems are almost always developed by representatives of the lighting equipment, by the manufacturing companies, by the installation companies. And going against the grain, by the architects who unfortunately (not through their own fault) lack the specific training unavailable at the university - with some illustrious exceptions of course.

By designing exterior, interior, landscape lighting etc. we mean analyzing the various angles (architectural, historical, psychological, philological, technical, chromatic, economic, management...), the specific function of the environment, volume and similar factors, while trying to compensate the deficit of the natural lighting with the technical means available or if necessary, by designing something specific.

To some this fashion of tackling the architectural illumination may appear to be logical and to others the complete opposite to how the professionals interpret illumination (in this country where we design and produce the most beautiful lamps in the world and as a result illumination would appear often to be a problem limited almost exclusively to the formal choices of the equipment to use).

The design of illumination is separate from the equipment which at the end of the day are just the instruments. They are not visible and allow the architect to

produce the lighting arrangements that provide the individual with visual perception.

Architectural illumination is the conceptual design of that tangible phenomenon called artificial light; the lighting equipment is just the means to produce it.

If we take a look at the theater for example, life is symbolized in all its complex psychological aspects and light the essential instrument for representing such archetypal symbolisms creating sensations, dreams and emotions, taking full advantage of the primordial magical relationship between light and dark. Through the theater, architectural illumination has intercepted the use of all the psychological reflexes with which the average spectator perceives reality. However, this does not mean that by illuminating the inside or the outside of a building or by adding light sources to a garden, that we are creating theater, on the contrary all we are doing is 'making visible' using the visual aids that activate all the perception mechanisms that are widely used in theater.

A banal example of 'empirical theatricality' - which nevertheless says a lot about what light can do, comes from the sales counters for meat products in the supermarkets; fluorescent lights which emit carefully screened pink light are mounted above these counters. These give the meat a better color and the client's psychological reflexes come into play deducing that this meat is fresh.

Under the same logic, cold-emission fluorescent lights are mounted above the vegetable counters making the leaves appear greener. The color is more intense, brighter and again the client automatically thinks that the products are fresher. Try the experiment, place two appetizing bowls of ice-cream with relative spoons on an empty table; both are identical in appearance but one is well-lit but tastes awful, the other is delicious and left under poor light. Invite someone to help themselves and you will see that they will generally be attracted to the brightly lit bowl, without even tasting the contents.

Again, in a dark corridor, everyone will move spontaneously towards an open door which is lit as opposed to the unit door.

Architectural lighting is always metabolized by the psychology of the observer. Think of a rectangular shape immersed in total darkness, naturally we cannot see it. If we place little lights at the corners, the entire shape will still be in the dark but we will say that we have a rectangular shape in front of us. If one of the lights is turned off we will perceive a triangle; by turning off another we have a line and then a dot - then it disappears again.

Yet this is not real perception, it is sensorial, psychological, and the quantity of lux (meaning light) emitted by the lamp and the shape of the equipment that contains it is, from the architectural point of view, exquisitely non-influential.

These short examples are cases of sublime persuasion, but they clarify two important concepts of architectural illumination - the first is the visual perception created primarily by daylight; it has a strong component of perceptive prejudice - the second is that by analyzing these prejudices case-by-case with the use of artificial light supports reality is read as a psychological re-interpretation.

Unfortunately, in important projects, the only pseudo-design operation - highly emphasized by the professionals in the sector and by our universities, was limited exclusively to the calculation of light (LUX) and the obsessive observance of the tables containing the standard parameters, values of unquestionable importance in the calculation of illumination for a football pitch or a tennis court, but only marginally applicable to a serious program of architectural illumination.

Architectural illumination involves a primary analysis of the building or the area in question to then interpret it and make it legible with no misunderstandings. In order to satisfy these theories professionally, the architects must have specific academic and cultural preparation - that unfortunately is sorely lacking in Italy, practically non-existent.

As a result, the illumination is bad. Our buildings by night look as though they are façades; the articles in the exhibitions appear to be shaded by our own shadows or their appearance is incomprehensible. Glass looks like plastic, plastic like wood, reds that appear brown, yellows green. The cities are in the hands of the 'illuminated officials' who think that a service industry has the staff with the right amount of education to design architectural illumination of monuments such as the Pantheon in Rome or the urban embellishment of the cities that are jewels; bureaucrats of cultural heritage that have the power but not the know-how, and who will approach almost any type of illumination as long as the lamps blend in with the environment... and so unfortunately we are slowly drowning in this sea of arrogant sub-technical provincialism.

Is it possible that we visit other countries and wallow in the splendor of their sites - the architecture, the rooms and halls, the monuments - and we never stop to ask who is behind this work? Is it possible that in the other countries, the hotel lighting for the congresses is just perfect, the articles on display at the exhibitions are perfectly visible and we never question why? Is there an organic project or is it just a lucky combination created in heaven. The answer is obvious, it is never just pure coincidence, only our normality is the result created in the stars. Behind all of this, there is actually a culture which is highly sensitive to these problems and to the professionals that design architectural illumination.

But there is a nagging doubt - could it be that in Italy the universities release architects from their studies, proud in the crazy misconception that they are trained to design everything and anything? But if that be the case, are we not just ailing with a bad dose of 'Renaissance-itis'?

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