THE REPRESENTATION OF COLOUR AND LIGHT IN ARCHITECTURE THROUGH WATERCOLOURS

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ABSTRACT
The drawing of architectural patrimony must use all the methods and techniques of representation most suitable for its graphic transcription; both traditional and digital.
In this paper I would like to highlight the effectiveness of the watercolour technique in transmitting the impressions that architecture communicates. A representation of the colour and light of architecture filtered through the texture and transparency of watercolours.
Keywords: Architecture, Colour, Drawing

INTRODUCTION
Architectural forms impress on our states of mind, evoking multiple emotions and soliciting new and changing states of consciousness.
In fact the vision of art and architecture helps us to abandon thoughts of ourselves as isolated and self-referential organisms and to seize the infinite relationships between man and the environment that surrounds him.
An architectural entity can be looked at not only as a spatial configuration aimed at satisfying the needs of the client but also as a potent stimulus that can produce well-being or melancholy. In itself it can spontaneously express a state of being that enters in resonance with the life experiences of those who gaze at it.
Through its forms, its colours, the mental associations proposed by its history and by the building’s uses, every construction offers a precise impression: serious, oppressive, happy, friendly, inviting, menacing.
All the physical elements of architecture: form, weight, strength, vertical and horizontal distribution permit themselves to be redefined through the experience that we ourselves have lived, because the architectural organism has been constructed according to human principles, linked to our physicality. The experience of man as spectator and that of the inanimate object melt and intertwine always creating new and different results.

In the course of the 19th century the greyness of industrialised cities gradually filled with the artificial colours of placards, paints, coverings and luminous signs, until the invention of synthetic colours, always identical, unchangeable and repeatable. Colour had had its own particular life marked by a beginning and an end, in both use and consump-
Chemistry tore the life and soul out of colour creating paints that spread fixedly across the surfaces of things provoking a visive homologation that changed the relationship between man and his architectural patrimony that enriched his life surroundings.

While chemistry has removed the precariousness of colours which previously faded over time, the invention of the electric light has submitted them to visual instability, owing to the changes of light and shade. Light, bent by the will of man, illuminates buildings, streets and cities by day pushing ever farther away the areas of shade in favour of surfaces. In this prevalence of light one can symbolically see the metaphor of the superiority of rational thought over man's instinct.

In the rational conception of nature light becomes a means by which things can be seen and colour a factor that determines its confines, its volume and characteristics. Architecture doesn't exist without light and colour; every building, even the most neutral from a chromatic point of view, is characterised by a coloration that renders it recognisable through the intensity of the light that envelops it and, with the changing hours of the day, shows up the particularities of the single materials and evidences the parts in shade.

To execute an architectural design from life using colour one must decide at what hour of the day to represent it. This means checking the position of the sun and the shadows that it creates, that also condition the different tone colours of the materials (for example the tint of a plaster, the colour of a marble, the transparency of a glass windows.)

To highlight the chromatic changeability of a building in the course of a day one could photograph it in different hours in order to compare the photographs one with the other; however, the analysis of colour through watercolours created from life is more valuable. This technique in fact permits the artist architect to have a greater understanding of the architectural forms.

When one begins this work one must first closely observe the building, individualising the areas of shade; the correct representation of the shadows highlights the particularities, the projections and the
decorations and contributes to the correct reading of the structure. However, the shadows change quickly together with the colours and it is not easy to rediscover the references from a graphic composition. In short, the time for representing architecture from life through watercolours cannot be too protracted because the changing light creates continual variations that make one lose control of the picture.

The watercolour technique, through means of its ability to indicate nuances of light and chromatic sensations, allows the building to be shown immersed in an evocative atmosphere.

The result of this work are pictures rich in colour with layers of clear watercolour painting: the strong, essentially evanescent nature of this technique really suits the representation of the architecture and the city.

This article relates an experience of the author during the Watercolour Seminar held in Matera, Italy, from the 25th to the 30th May 2009 with the painter Pedro Cano. (The Spanish artist Pedro Cano is one of the major living exponents of contemporary representationalism, many of whose paintings represent architecture where light and colour are the predominating features).

Work aimed at showing images of the city of Matera and its architecture produced many watercolours from life; that is to say eliminating the initial pencil drawing on the page. During this week long seminar, elaborate external graphics were produced: panoramas and sights of the city both from a distance and from above, foreshortened perspectives of streets and alleys, views of isolated buildings and various architectural details shown in different hours of the day and in all climactic and light conditions.

The objective of these watercolours was to know, document and give information about the forms, geometry and proportions of the architecture of the city showing not only the colour expression of the individual buildings but also the atmosphere and sensations of the place. At the basis of this work was always the careful observation of the architecture and its relationship to empty spaces; in fact the understanding and consequent representation of a clear, effective and communicative painting is not possible without a high level of concentration.

In the first phase of understanding of the architectural patrimony these watercolour representations can give to the planner a greater amount of information as compared to a black and white drawing. They permit the collection of information concerning materials, plaster tonalities and the chromatic contrasts of decoration, but also succeed in
The first perceptual sensation of the city, seen from a distance, produces a picture which is the fruit of subjective emotions; the chromatic perception of the city in relation to the sky is favoured. As opposed to what happens in verbal exchange the chromatic choice (i.e. the reason why one colour is considered pleasing and another not) occurs completely unconsciously. This type of representation was produced by quickly filling the page (in about ten minutes). The time factor was extremely important because it forced one to greatly synthesise the image, to make a selection of the most important and characteristic elements of the object, gathering together the essence of the forms and of the things. This synthesis can only be carried out with great concentration and, sometimes, can be much more useful than a slower and more controlled drawing that can lose, in some cases, freshness and harmony. (Fig.1)

The chromatic elaboration of the sky (often resolved using cobalt blue) is fundamental for the result of the artwork; the sky frames the building, constituting its background and establishes its "connection" or "attachment" to the upper part in the same way as a grey street, a rock or a green field can be the base of a drawing so constituting its "feet", its "attachment to the ground". These two connections, where present, are fundamental elements in the laying down of the graphic composition because they allow for a well structured drawing. (fig.2)

In a pencil drawing done by hand from life, a method not to be renounced by any architect due to its great expressive potential, some characteristics can...
sometimes be missing, especially those linked to colour, which is so necessary for the understanding of a place and space and the relationship one to the other. Through the watercolour technique the analysed area can be graphically presented more completely and objectively, its chromatic identity rendered through the colours of the materials allowing for the recognition of the architecture. (In the transferred form, for example, the light tonality of the materials, near to the colour beige, identifies the architecture of the city of Matera characterised by this particular type of pale coloured stone). (Figs.3-4)

It is sometimes useful to create the painting using only one colour, in a monochromatic way, so giving greater importance to the light striking the architecture. This type of operation is apparently simpler: the finding of the exact tonality of colour to represent green, or the tints of plaster or to individualise the perfect grey of a street is not necessary. But, above all, one need not be concerned with the chromatic relationship between single colours that often don’t combine together aesthetically, but can instead concentrate exclusively on the representation of light and shade, starting from lighter tones in order to then better define the darker parts of the drawing. To achieve better graphic results in one colour drawings the best choices are sepia, browns and black. (Figs.5-6)

It must be emphasised that the watercolour technique doesn’t represent an alternative but more a useful integration to contemporary representation techniques. Firstly because it can be used as a didactic tool: the student, applying him or herself to coordinate the visual perception of the architectural structure with the hand movement necessary to carry out the graphic operation, is exercised mentally in profoundly understanding not only the final form of the structure but also in going over again the entire underlying project. Secondly because the watercolour technique enriches the process of analysis of the architecture contextually, providing the architect with important information for the re-qualification of the urban space.