Events

XVI Color Conference

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For many years the Color Group has been promoting theoretical and practical sector research, with an increasingly interdisciplinary outlook. The organization, founded in 2004, but which traced its roots back to 1995, has always fulfilled the tasks it had set itself during the drafting of the statute: a) promote the study of color in all its aspects, including aspects relating to vision; b) offer the various people and / or groups of people who have to do with color in its various aspects, scientific, industrial, aesthetic or didactic, the opportunity to meet and communicate their problems; c) launch the necessary or desirable activity to raise a representative opinion on the various problems of standardization, specification, nomenclature and all other aspects that the Group will consider necessary to assist the research; d) encourage and promote the investigation of color phenomena and color measurement and the attempt to ensure that Italy is aware of the developments taking place in other countries of the world; e) assist in the dissemination of knowledge of color.

It is no coincidence that I propose these points again. I find it very interesting that knowledge, promotion, and dissemination of knowledge are the basis of these principles. But the group also sets itself the task of offering all those interested in the subject the opportunity to meet and communicate. It was a year, 2020, which put a strain on this last aspect, but together with it also all the previous ones, because without the meeting and comparison there cannot even be growth.

The task of the Department of Engineering and Applied Sciences of the University of Bergamo was doubly difficult. And, personally, I would like to thank them for allowing all of us, who follow the color group, to see each other, albeit telematically, to exhibit individual sector researches, and to listen to interesting and quality interventions, as always.

The 2020 edition of the Color Conference, the sixteenth, was held on 3 and 4 September and for the first time was held electronically on the Teams platform, using virtual classrooms corresponding to the various sessions of the program. This modality allowed all the participants to attend the conference with extreme ease and, above all, in a way completely similar to the one in person.

The international relevance is also evident thanks to the collaboration of other associations, the Associação Portuguesa da Cor, the Comite del Color Spain, the Deutsche Farbwissenschaftliche Gesellschaft and finally the Swedish

Color Center Foundation. The international presence has always been considerable in previous years, but it must be admitted that the telematic possibilities have made the number of interventions from other countries even greater this year.

The science of color has a centuries-old history, first based on perceptual aspects, and later on experimentation and theorizing. However, it is only since the last century that this science has embraced multiple disciplines that have made color theories their own and specific. This variety can be clearly seen in the numerous thematic sessions in which the conference has been divided for years, guaranteeing the richness and at the same time the interdisciplinary nature of this science.

Already from the Invited lectures the multifaceted factor of the conference is denoted: Michael Robinson exposed the international and interdisciplinary dimension of color in Car Design; Rosella Cilano, for years engaged in research and experimentation on natural color, instead presented a speech on the use of natural dyeing for fabrics, ranging from purely chromatic to ecological factors; Riccardo Zanetta, an architect who deals with the design of color in historic centers, such as for the historic center of Bergamo upper city,



instead introduced the importance of a scientific competence in color management in the historic city.

The multiplicity of themes anticipated by the Call itself, first, and then also by this rich introduction to the convention, is realized in the twelve sessions that touch numerous sectors of the most disparate.

In this regard, denouncing my academic preparation in restoration and representation, I must confess a propensity for certain themes rather than others, but the purely subjective interest does not influence the high judgment of interventions that are always well centered, focused on the topics, clear and of extreme academic and scientific interest.

The oral sessions, in Italian and English, were divided into 2 channels. On this telematic occasion, we must confess that being able to follow all the interventions in which each of us is really interested was much easier and less intrusive: the possibility of being able to enter and exit a Teams channel or the other has made everything very more fluid and non-invasive.

In recent years, interest in chromatic aspects in different disciplines has become increasingly intense and, in many cases, new technologies have made it possible to put into practice new experiments and consequent theories. In memory of the UID 2012 Conference on *The praise of theory* and the importance of practical experimenta-

tion, it was surprising to hear how, in many of the interventions of this 16th Color Conference, applied experimentation was essential, both for research in scientific-engineering subjects as in socio-psychological ones.

Of great relevance, undoubtedly, is the topic that has been dealt with several times, on the chromatic aspects in public places and hospitals, especially for children, to which is also added the educational aspect of color in children's games. However, the influence of color on moods is also the basis of much research in the field of architectural design. But the interest of most of the studies in the architectural field falls on the historical and restoration aspects, ranging from contemporary architectures such as the Casa del Fascio by Giuseppe Terragni (contrary to the common imagination that wants it monochromatic), to those of Lina Bo Bardi and Oscar Niemeyer (with particular attention to red and its meaning). Also worth mentioning are the studies on the Casa de Micheli, an Art Nouveau jewel whose colors are to be analyzed and preserved, and finally, the interior design with chromatic studies on both furnishings and upholstery and colors, up to historical architecture.

Interest in heritage can have different meanings. There is that linked to the aspects of the restoration, with the interventions on the Cathedral of Piazza Armerina and the characteristic curtain wall lined with raw brick, or to the wall colors incredibly preserved by the Vesuvian ashes in the *Capitolium* of Pompeii, or even towards the research on the colors of the post earthquake construction in Central Italy.

A second value refers to cultural heritage in a broader sense. Research is discovered on street art and color as an element of urban regeneration through

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Fig. 1. Thumbnail of the XVI Conference of Color - Bergamo 2020.

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perceptive redevelopment plans, or on the colors and geometries of Portuguese azulejos, emphasizing the method of color composition, the perceptual aspects connected to it and indicating a method for evaluating reflectance of the facades of buildings adorned with majolica.

Or, it is possible to rediscover the historical studies of the sector with a careful analysis of ancient texts and treatises, a reinterpretation that always leads to new and fascinating deductions: the Tratado di Diogo de Carvahlo and Sampayo, little known in Italy, in which the the author introduces the linear chromatic scales, which is also appreciated and cited by Goethe; or the interesting study on the design treaties of green spaces from the early 1900s in the middle of the Art and Crafts period, especially those by Gertrude Jekyll, Color in the flower garden (London: Country Life, 1908) and Color schemes for the flower garden (London: Country Life, 1919) in which the techniques and color combinations at the base of the author's "flower borders" were explained; a different study on the texts by Imre Pal, from the 1960s, in which the analyphs generated for the three-dimensional vision of descriptive geometry models are analyzed, focusing attention on the didactic importance of an immersive vision together with the chromatic tools of anaglyphic vision.

The interest in the historical, artistic or architectural heritage, today, focuses not only on direct interventions, but increasingly tries to analyze, catalog and use this heritage in a digital environment, as



Fig. 2. Opening at the NOW Gallery in London, Slices of Time by Emmanuelle Moureaux.

for the immersive path with multimedia technologies of the Villa Farnesina in Rome, or as the project of documentation and digital management of the floor mosaics of the Church of the Nativity in Bethlehem, with metafiles that enrich the dimensional data with chromatic, geometric and conservation ones.

But all these interventions that we could define more tangible are flanked by as many scientific studies on Hyperspectral Imaging (HSI) which allows to measure the continuous spectrum of light for each pixel of the scene with a high resolution of the wavelength, both in the field visible spectral but also infra-

red (NIR); or the analysis of the Euclidean formula for color difference applied to small to medium color differences in the log-compressed OSA-UCS space. This brief overview of some of the issues addressed does not do justice to the varied series of research presented at the conference. However, most of the interventions have converged in the volume of the proceedings, which has just been published, and which is clear evidence of the quality of the works presented and confirms the great professionalism of the participants but above all of the entire organizing committee.

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