



# Colour project as redevelopment of school environments. Colour and visual identity

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## *Abstract*

School is a place of culture, coexistence, bonds, and a social place where the foundations and values of the future society are transmitted.

The educational project proposed and realized at the Sandro Pertini State High School in Genoa "Workshop and activities for the redevelopment of school spaces", is part of the project "We need Education. Let's take back the school", and take place in the "Plan for expanding the educational offer" defined by the Ministerial Decree n. 48 Art. 3 Comma. 1 Letter. a, in response to the "Fight against poverty and educational emergency".

The aim of the project is to involve students and teachers in perceptive chromatic activities of school environments by an inclusive, collaborative and participative community process. The purpose is to help school community aware to re-appropriate their educational spaces, the visual culture in public schools, and the rediscovery of identity and social cohesion in the school environment.

The methodological basis for the workshop activity was based the use of theories of didactic innovation and its practical applications through drawing and representation. Student participation and co-operation aim to increase creative problem-solving skills, leadership and teamwork and give students a sense of pride and belonging to their places.

## *Keywords*

Drawing, representation, education, color, visual identity



Phases of realization of chromatic projects in the Sandro Pertini State High School of Genoa (Photographs by author).

## Introduction

This contribution is part of the actions implemented by the Ministry of Education in expanding and supporting the educational offer for the school years 2020-2021 and 2021-2022, aimed at improving basic skills and promoting initiatives for aggregation, social relationship and group life of students and adults [1].

The educational project *We need Education. Let's take back the school*, submitted and selected for funding for the Call "*Summer School Plan*" D.M. n.48/2021 art.3, Paragraph 1, has as its objective the awareness of the school community towards the re-appropriation of its educational spaces and the rediscovery of identity and social cohesion in the school environment.

The project needs the involvement of students in actions of chromatic redevelopment perceptive places of the school, through an inclusive, collaborative, and participatory community process. The artistic/prosocial project wants, not only to sensitize students to cooperation but, enhance and systematize the knowledge and skills they have acquired in various disciplinary fields, expanding them with concrete experiences.

## Colour and perception: theoretical basis for a colour project

"The different uses of color; as a form of universal language and free expression of human genius, is implicit character of the perception of each environmental, social and architectural component". [Salveti 2020, p.260]

The approach to a colour project comes from multiple studies in which design, color and perception are themes that have merged to take on the role of redevelopment design elements. The color in the didactics, in particular, attracts attention, stimulates emotional responses and influences the individual perception of the surrounding environment improving learning.

Starting from the modern conception of colors in the physics of Isaac Newton, it is from the experiments of J. W. Von Goethe, that we begin to relate the physiological aspects of vision to the subjective perception of colors, referring to the central role of the body and sight as mediators of natural phenomena. From the structural theory of colors, in which we study the laws of chromatic effects as they result to vision, to the seven contrasts of colors described by J. Itten to define, in an objective theory, the chromatic harmony given by the combinations of colors.

In particular, the Chromatic Systems are identified in the perceptive sphere of Reality and Chromatic Effect, through the principle of relation and the techniques of Harmony of Colors with experiments on: Contrast of pure colors; Contrast of light dark; Contrast of warm cold; Complement contrast; Simultaneity contrast; Quality contrast and Quantity contrast.

In the international classification NCS Colour, fundamental for the design of colors, the six colors are arranged within a three-dimensional space where it is possible to materialize the relations between all the colors in function of their degree of similarity with the elementary colors themselves [2].

Together with the theoretical basis on color, the studies on the optical and psychological processes of perception introduced by the psychologist M. Wertheimer in the concept of Gestalt and developed together with K. Koffka, W. Kohler and K. Goldstein in the Gestalt School were analyzed.

Perceptual patterns are based on the drawing and compositional applications of the psychology of Form (*Gestaltpsychologie*) and the innate laws called perceptual organization or configuration such as: proximity, similarity, continuity, common destiny, figure-background, closure, past experience, significance. While recognizing the importance of memory and experience, visual perception largely depends on sensations in structured sets, that is, the relationships that bind together the elements that make up the image. The gestalt scheme prevails over experience, according to the configuration law called continuity of form.

In the conviction that at the "compositional" level drawing plays a fundamental role, the same perceptive themes of the Gestalt philosophy, related to the design and the use of color as a qualifying harmonic element, have been applied to the case study. [Pellegrini, Salvetti 2021]

## Participatory color projects

On this theoretical basis, during the research, national and international cases were examined in which the chromatic redevelopment of school environments was used as a stimulus to cohesion and a sense of belonging to the place. "Experimental processes, such as creative artistic design workshops, which lead a new cultural institutionalism in which an attempt is made to review the structural relationship between contemporary arts and territorial and community contexts. The systematic incorporation of the arts in educational contexts promotes critical thinking and imagination, the democratization of cultural institutions themselves and the inclusion of professionals in productive contexts of ecosystems outside the art world". [Salveti, Scaglione 2021, p.773] Excluding chromatic projects carried out by professionals themselves, those participatory projects were identified and analyzed in which students, families and school staff were involved in operations of regeneration of school spaces.

From the selection emerged different forms of involvement and collaboration of students and different approaches to the implementation of projects. The common feature of all the cases described below is the use of graphic signs and simple geometric shapes highlighted by strong, pure, and bright colors in a game of contrasts and alternations. These new visualities, as forms of direct and privileged communication especially in young people, often refer to the world of art and design. *Project Color Corps* is a non-profit organization, founded in 2011 by Laura Guido-Clark, which involves communities, designers, commercial paint companies and professional painters in the creation and implementation of color redevelopment projects in the schools. During this process, they teach to the students and to the community members about the fundamentals of color; the connection between color and emotion, and how color can be transformative. The organization believes that color is an agent of change that instills a sense of well-being, joy and equity in the surrounding environment.

Transforming environments, through "optical optimism", *Project Color Corps* seeks to bring beauty and integration possibilities between students, schools and communities in degraded neighborhoods of the country [3]. In the chromatic redevelopment of the Cambridge Elementary School in Concord, students were involved in all phases of the project, in particular, in the final choice of the drawings and colors to be used during the construction phase (fig. 01). In the case of the E.C. Reems Academy of Technology and Arts in Oakland, the designs of *Project Color Corps* were made of murals that highlighted and reflected what the students had shared in the design phase (fig. 02).

At Madison Park Academy the students were involved in both the design and the final execution (fig. 03). The case of the Caliber School of Vallejo being the school under construction, the colour project was studied during the planning of the new headquarters. The students were involved in the choice and implementation of the drawings and colours of the areas inside the building (fig. 04). *Publicolor*, founded in 1996 by Ruth Lande Shuman, is another non-profit organization whose main purpose is to bring young people from disadvantaged communities closer to education and improve their social life through the use of design and color. In the Paint Club program, students and volunteers are followed by color professionals for training and painting programs at their schools (figs. 05-06) [4]. Let's Colour Project of Dulux AkzoNobel, since 2009 carries out community transformation programs through the use of color around the world. In recent years he has collaborated with schools to use education and renewal against youth unemployment. In these projects students are involved in vocational training workshops [5].



Fig. 01. Digital elaborations of project and photographs of the chromatic requalification of Cambridge Elementary School in Concord, California (USA). (projectcolorcorps.org).

Fig. 02. Photographs before and after colouring work at the E.C. Reems Academy of Technology and Arts of Oakland, California (USA). (projectcolorcorps.org).



Fig. 03. Photographs before and after colorization work at Accademy of Oakland, California (USA). (projectcolorcorps.org).



Fig. 04. Digital elaborations of project and photographs during the colorization works of the Caliber School of Vallejo, California (USA). (projectcolorcorps.org).



Fig. 05. Photographs of the chromatic requalification of the IS 291 Roland Hayes School in Brooklyn, New York (USA). (publicolor.org).



Fig. 06. Photographs before and after painting at IS219 (Frederick Douglas Academy III Secondary School Complex) in the Bronx, New York (USA). (publicolor.org).



## Case study: Sandro Pertini State High School in Genoa

“Identity is a social factor; not an individual” [6].

The study of visual/perceptive chromatic redevelopment, conducted at the Sandro Pertini State High School in Genoa, treats the chromatic values and the design choices aiming at the identity awareness of the places closely linked to the theme of color in public spaces of school education. To promote the creative potential of students through a work of collective regeneration, with the intention of developing in them the sense of citizenship, care and respect for school spaces for their future maintenance.

The course has included a didactic, educational, and operational program developed through organized meetings and workshops to be held in presence at school involving 30 students.

The training/educational actions of the entire program were carried out using learning models such as cooperative learning, brainstorming, problem-based learning, problem solving and practical workshops.

The educational project was aimed at the rediscovery of the elements of visual language through the creation of expressive compositions using different techniques and materials. The initial teaching focused on the basic notions of: representation, color; studies and perceptive patterns of form, space and graphic language. The inspections and photographic investigation, carried out together with the whole class group, were important moments for the critical observation of the school space, to grasp the strengths geometrically perceived and reflect on its possible reworkings. Design reworkings carried out through analogue/digital drawings and photomontages. The design had to respond in particular to the request to have a strong link with the image of the former President Sandro Pertini to whom the School is named and that the colors of the four addresses of the High School were immediately visually recognizable: Linguistics, Music and Dance, Humanities, Social Economics (fig. 07). To strengthen the new visual identity, the coordinated image has been used in all the headquarters of the High School.

The second colour project has developed into a collective space shared by all, students, teachers and administrators. A space open to the passage that could generate a visual/ perceptive stimulus of a cheerful environment, which stimulated conviviality and socialization. Matching a color is not only an aesthetic issue but is to select and match the colors taking into account the result you want to achieve and how that space should be perceived and experienced by the users themselves. In the free-theme chromatic project, the use of descriptive geometry and optical illusions allowed students to interpret different colour combinations (fig. 08). The methodology proposed and tested in this case study derives from a wider research conducted in the last twenty years on the subject of color and redevelopment of places and spaces “visual/perceptive redevelopment study, by the Laboratorio Colore Cts\_ColorLab (Laboratory of Technology and Color Sciences of the Department of Architecture and Design of the Polytechnic School of Genoa) at the Department of Architecture and Design of Genoa, in which they deal with the chromatic values and the design choices closely linked to the theme of color in the working areas and specifically in the public areas of education”. [Pellegrini, Salvetti 2021]

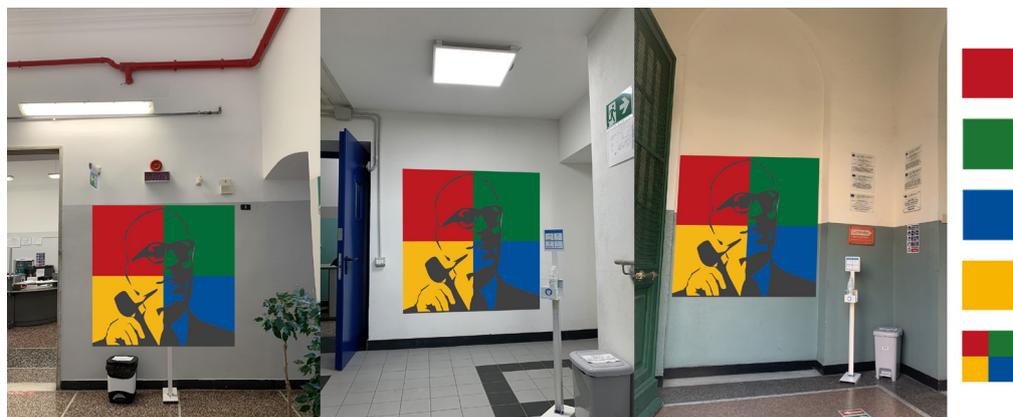


Fig. 07. Photomontages image project Sandro Pertini in the headquarters of the Sandro Pertini State High School of Genoa. (Author's elaboration).

The experimental colour project of redevelopment of school environments has allowed to validate the thesis that drawing and color have a fundamental role on the visual component of students' identity towards the school. The involvement of students in the whole process of redevelopment, through the development of an experimental teaching, has had a positive impact that has validated the replicability of the project in other school structures.

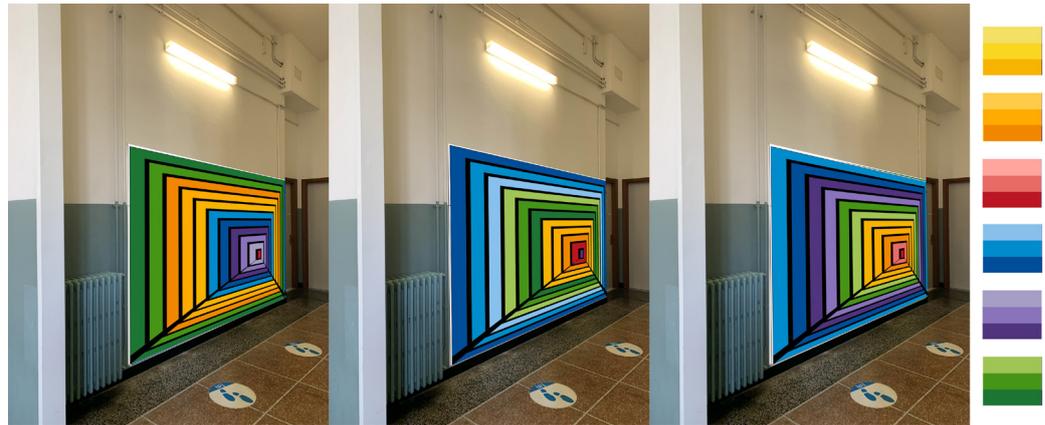


Fig. 08. Photomontages chromatic framework project in the headquarters of the Sandro Pertini State High School of Genoa. (Author's elaboration).



Fig. 09. Photographs of the realization of the chromatic framework project in the headquarters of the Sandro Pertini State High School of Genoa. (Photographs by author).



Fig. 10. Photographs of the realization of the image project Sandro Pertini in the headquarters of the Sandro Pertini State High School of Genoa. (Photographs by author).

## Conclusion

The Laboratory started during the school year 2021/2022, was characterized by the active participation of students in all phases of the project. Design and representation are confirmed as theory and practice that unite and facilitate relations in the school environment.

The use of shapes and colors for a perceptive chromatic language that dialogues with the end user in a simple and engaging. These spaces, which use color as a catalyst, turn out to be spaces that facilitate the development of the individual and social interactions.

The represented graphic elements qualify as didactic demonstration tools that are highlighted in how they are perceived. The depth of the shapes and the density of the colors applied to the perspective form the perceptual field. The repetition of coordinated images in school spaces reinforces the visual identity reference. The role of teachers is to instill culture, but it is also to facilitate dialogue and relations with others in social actions. Educating means getting everyone's skills out and channeling them into a project that exalts all aspects. Enable new creative problem-solving skills, teamwork, pride and belonging to your school. The Didactic/Educational Laboratory has tried, through a concrete action, to contribute to the visual culture in the public school, which with the structure contributes to the loyalty of students in a recognition in places of cultural growth.

"It is said that schools are usually ugly places, usually anonymous and poorly maintained. This applies above all to secondary schools of second grade (kindergartens and primary schools have long since activated a particular sensitivity in making the spaces more welcoming). Beyond the achievements, we want to pay attention to the process behind this type of activity. Working and building together something beautiful also in school and for school. This is what counts most of all" (figs. 09, 10) [7].

#### Notes

[1] PON - Apprendimento e socialità (istruzione.it)

[2] [ncscolor.it/sistema-ncs/](http://ncscolor.it/sistema-ncs/)

[3] <http://www.projectcolorcorps.org/>

[4] <https://www.publicolor.org/>

[5] <https://letscolourproject.com/>

[6] Interview Galimberti U. - Feltrinelli Editore | ottobre 2019, Presentation to the book "Perché".

[7] <https://www.liceopertini.edu.it/>

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To cite this chapter: Salvetti Francesca (2022). Colour project as redevelopment of school environments. Colour and visual identity. In Battini C., Bistagnino E. (a cura di). *Dialoghi. Visioni e visibilità. Testimoniare Comunicare Sperimentare. Atti del 43° Convegno Internazionale dei Docenti delle Discipline della Rappresentazione/Dialogues. Visions and visibility. Witnessing Communicating Experimenting. Proceedings of the 43rd International Conference of Representation Disciplines Teachers*. Milano: FrancoAngeli, pp. 1927-1934.