JAIC Special Issue on Colour Education

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Education is defined as "systematic training and instruction (esp. of the young)" [1], therefore "colour education" must go much beyond the teaching of primary colours, the colour circle and colour mixing. It must be started very young and continue to immerse the students deeper and deeper into this fascinating world. The founder of the kindergarten movement, Friedrich Froebel, thought it important that the first "gift" (set of toys) contain six coloured balls: red/yellow/blue and orange/green/purple (and let’s not go here into the discussion of the so called “primary” and “secondary” colours, that discussion alone would justify another special issue of JAIC).

Colour is the ideal subject for interdisciplinary education. Professor W. D. Wright, one of the greatest colour scientists and educators of the last century wrote an essay on A Course on Colour for Schools [2] and he made a point of not thinking of colour "as yet another subject which has to be crammed into the overloaded physics syllabus. [He saw] it rather as a General Studies subject, bridging all the sciences, a central element in arts and crafts, and providing a point of contact with philosophy and even religion. A perfect subject, in fact, for comprehensive education." This is all the more true in higher education, where colour could be an ideal subject for teaching some science to arts, design and architecture students, and some arts, philosophy and psychology to technology and engineering students – the STEAM approach, so very fashionable today.

Over the past decades there have been many reports of initiatives in this direction, but we could hear of only very few success stories. Nancy Jo Howard, former Chair of the Study Group on Colour Education (1987-1992) had launched an ambitious undergraduate programme in Color Science at the Philadelphia College of Textiles and Science, but four years later she had to announce its demise [3]. “Four years of low enrolment in the program and changing departmental priorities have convinced me of the wisdom of withdrawing the color major.” In the 1990’s the SENAI/CETIQT Colour Institute in Rio de Janeiro announced [4-5] great plans of a 376 hours post-graduate colour course for designers, architects and artists. Once again, change of priorities and lack of resources shattered the dream.

Although colour education has had its advocates for at least the past two centuries, not everybody agrees on its necessity, or even usefulness. Lloyd Jones [6] went so far as to declare: “The history of the influence of scientific theories on the use of colour in art is an extremely interesting one, because it is almost entirely baneful where it is not entirely irrelevant to an artist's actual decision making.”

Luckily, there are strong national and international organisations (such as the ISCC or AIC itself) and many individuals carrying the torch of colour education. What is needed, though, is more awareness of the demands and also of the pitfalls of current colour education both in the sciences, technology and engineering schools and in the arts, design and architecture institutions. In today’s computer centred world non-scientists cannot brush off the teaching of the composition of light and RGB saying that “I’m only interested in paints and pigments” – they, too, will inevitably have to handle graphics programs, computer aided design and digital printing. And the scientist types should be familiar with much more than the CIE system and colorimetry, to be able to use these tools intelligently they must literally see behind the numbers.

In this special issue of JAIC we have five articles from three continents. We can learn about the not too bright situation of design education in Brazil, but also of a promising endeavour in the field of architecture in the same country. We can also read about a successful European programme in the
field of colour science and technology, and an Italian Master level programme combining colour science and design. Finally, our Taiwanese colleagues present their admirable efforts in developing a comprehensive colour program.

These are the issues addressed by the five articles:

It is hard to imagine design courses without a massive dose of colour content. Csillag et al. made a survey of the design courses in the state of São Paulo, the most populated state in Brazil. It had to be sadly stated that only about one quarter of the 153 courses analysed had an independent colour subject in their curriculum. One of the positive examples is Csillag’s own institution, ESPM, where students get a full colour course in the third semester of their studies, offering colour theory connected to design applications, using the pedagogy of Project Based Learning.

The School of Architecture and Urbanism of the University of São Paulo (FAUUSP) offers a four-credit (60 hours) optional Colour Technology course for undergraduate students. According to João Carlos de Oliveira Cesar one of the challenges was to fashion a discipline that conveyed the proposed conceptual content, in Design Studio standards, while also encouraging the student to research and seek solutions to the demands that arise during the development of the project.

Nieves et al. describe a success story in establishing a very high-level Master Program through an international project. Four European universities (in Spain, Finland, Norway and France) cooperate with five Asian universities and 15 global industrial leaders to offer a course in colour science and industry. This program gives a shining example of making the best use of the possibilities offered by globalisation and European mobility.

Italy is the host of another international colour project: the Master Program designed and realised by the Italian Color Association, in collaboration with the Politecnico di Milano; attracting students from all over the world. Rossi et al. describe the organisation and the two phases of the programme. The first phase starts with the history and perception of colour and goes through colorimetry and colour systems to digital colour and professional designer colour applications. The second phase consists of five projects that allow students to apply the theoretical knowledge learned in the first phase.

According to Hsieh et al. in Taiwan there are about 1400 job vacancies named with “colour” in the job title; and about 12,700 jobs that require colour to be one of the applicant’s specialties in their recruitment descriptions. The article describes the enviable situation in Taiwan, where colour is regarded as an important aspect of professional skills from colour designer through colourist, colour engineer to colour scientist; and where great efforts are being made to develop the necessary educational and certification systems.

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References