Itten's seven colour contrasts – a review

Part III. The influence of Itten's contrast theory on colour education

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In the first two parts of this article, we described the origins of Itten's contrast theory, the road leading up to the seven contrasts as described in The Art of Color[1], and discussed in detail Itten's seven contrasts, pointing out the fallacies of some of his statements. In this third part we shall present the danger for colour education (students and teachers alike) lying in blindly following his contrast theory without an introduction to the core concepts inherent in the theory.

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One never perceives the colours in isolation as colour contrasts but holistically as a complex constellation of stimuli [1-2].

Introduction

The worldwide distribution and the great influence that Itten's seven colour contrasts have, especially in the teaching of colour in educational settings, was already emphasized in Part I. of this article. Immediately after the publication of Itten's The Art of Color, there have been voices criticising Itten's colour theory, which, in addition to the mixing system based on three primary colours, also includes the colour contrast canon. This criticism, however, has only been based on personal assessments or opinions, even if they come from some well-known and progressive (art) teachers [3 p.62 ff]. The effects that Itten's colour theory has on teachers and students in the classroom have only recently been scientifically researched in a comprehensive qualitative-empirical study[2]. The most important results of these case studies carried out in art classes are summarized here, focusing on the treatment of the colour contrasts.

[1] In this article we've been using British spelling, but, when referring to the English edition of the Art of Color, and also in all the quotes from the English edition, we have maintained the original spelling.

[2] One of the authors (AS) conducted a five-year phenomenological study supported by the state of North Rhine-Westphalia, based on a total of ten case studies, with five expert interviews with art subject leaders and five participant observations at different types of schools and grades, each conducted over a period of several weeks. All the details have been published in [3] and recommendations based on the findings in [4]. For a detailed review in English of the latter see [5].

On the relationship of colour contrasts to colours

Before going into the effects on teachers and pupils, it is important to emphasise that neither single colours nor colour systems presenting individual colours can be described using the canon of Itten's colour contrasts. The contrasts can only be applied to combinations of colours. Within these potential colour combinations, however, no specific colours are recommended by the canon. Instead, entire colour classes, each of which includes thousands of possible combinations with completely different appearance, character, and effect are available for selection. Due to these expansive options for choosing colours, one can easily find examples of colour combinations to which all seven of Itten's colour contrasts apply equally (Figure 1).

Figure 1: All of Itten's colour contrasts apply to the combination of these two colours — a slightly yellowish green of high lightness and medium vividness, and a slightly bluish red of low lightness and somewhat higher vividness [3 p.22].

- Red and green are clearly distinguishable tones, this is a **contrast of hue**;
- red and green also have the character of opposite colours, it is also a **complementary contrast**;
- the green is lighter than the red, the **light-dark contrast** also applies;
- there is also **contrast of saturation**, since the green is less colourful than the red;
- the whitish green is likely to be perceived by most as significantly cooler than the darker red, so that there is also a **cold-warm contrast**;
- due to the different area sizes, there is also a **contrast of extension**;
- and finally **simultaneous contrast** always has an effect on all colour constellations.

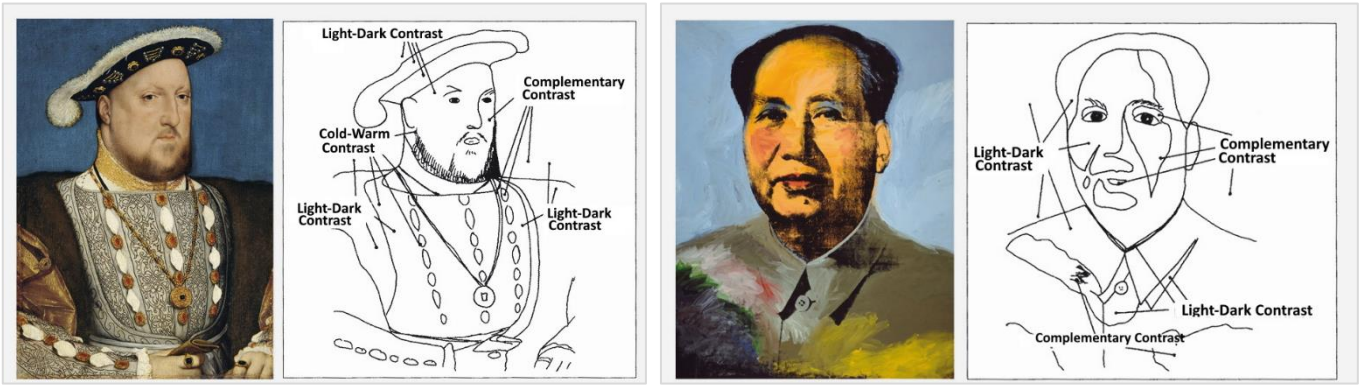

Figure 2: Analysis sketches for colouring in an image (Hans Holbein the Younger: Heinrich VIII, around 1536/37, oil on oak wood, 28 × 20 cm, Thyssen-Bornemisza Museum, Madrid and Andy Warhol: Mao, 1973, silkscreen and acrylic on Canvas, 444.3 × 346.7 cm, The Art Institute of Chicago). This exercise is taken from a 2012 high school training material for basic and advanced art courses in North-Rhine-Westfalia, Germany (Stark-Verlag), where the colouring is to be recorded using Itten's colour contrasts [Based on 4 p.130].

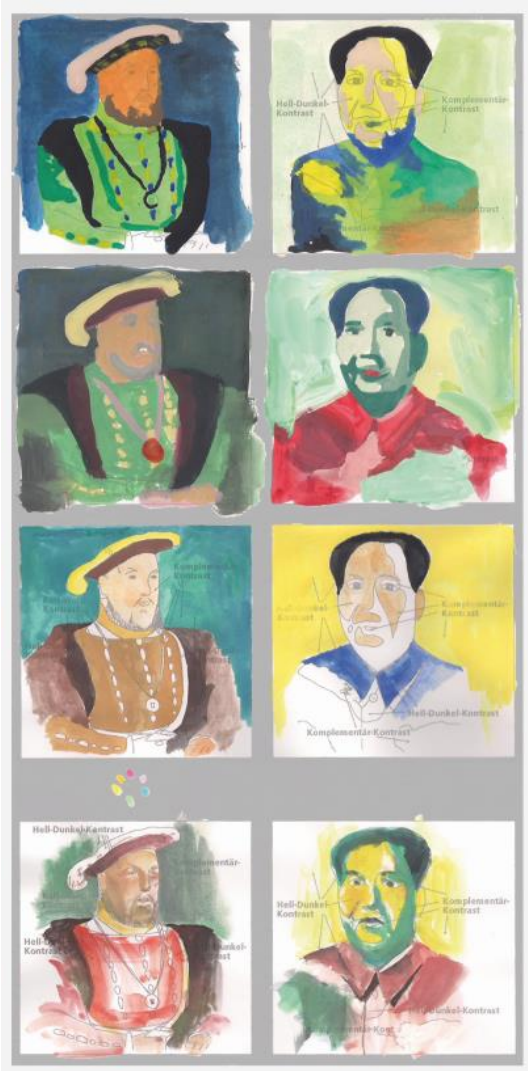

Figure 3: The reconstruction of the colouring based on the analysis sketches (Figure 2), carried out by students from the University of Duisburg-Essen (SS 2015), inevitably results in free and completely different interpretations that have nothing in common with the colouring of the originals [4 p.131].

The above example makes it obvious that nothing can be said about the colour combinations of art works by means of colour contrasts, although the latter is often used in art lessons to record and describe them. The specification of colour contrasts in design tasks, in turn, leads to a largely arbitrary use of colour and colours.

Importance and treatment of the colour contrasts – among children and adolescents

Children and young people experience colour directly and perceive it in a very differentiated way in all its wealth of nuances. When they talk about colour, they use colour names that often come with associations from their everyday world for further differentiation. Designations such as sky blue, lemon yellow and bottle green are characteristic of this. In comparisons such as “that brown looks like poop” or “that’s Schalke’s blue” there are also identity-establishing aspects – a negative aspect in the first example or an association with a football club in the latter – that also reveal the emotional value that colour has for children and young people.

Children see colours, talk about them and are directly addressed and emotionally touched by their effects. The abstract canon of the seven colour contrasts, on the other hand, has no objective meaning for them. It is brought to them in class as a list of learning material in the form of conceptual knowledge. The list must be memorized and then applied to the phenomenon of colour. This approach to the phenomenon of colour is strange for children and young people, because there are no points of contact with their everyday experiences in dealing with colour.

In addition, the colour contrasts obscure the unbiased view of the phenomenon because they act as coarse perception filters that slide between the perceiving subject and the perceiving object - usually an image in art classes [6]. The priority then is not to perceive the characteristics of the image colours, but the identification of colour contrasts, which are now determined comparatively arbitrarily. Because of the relationship between colour contrasts and specific colours, this is easily achieved as discussed in the previous section. A work of art is thus degraded to a colour contrast search image. The subtle colours and richness of nuances of the images are not taken into account here. Seeing and thinking in mere colour categories is promoted. Thus, when viewing images, a deeper understanding of the effect and function of colouring is not achieved through colour contrasts, but rather prevented.

When producing pictures, the students deal very differently with the colour contrasts if their implementation is given as a criterion. Confidently acting students, for example, skilfully exploit the indefinite relationship between colour contrasts and colours for their own freedom by only labelling their results relatively arbitrarily with any colour contrasts. Incidentally, the favourite here is the complementary contrast, which is chosen less because of the underlying concrete colour constellation and more as a particularly memorable technical term [3 p.281 ff]. Other students, on the other hand, tend to be inhibited by the abstract terminology, as they feel restricted in their usual way of expressing themselves creatively with colour.

In any case, the colour contrast canon turns out to be unrealistic and artificial for the students. It is only applied by students when extrinsically motivated by teachers. As with other elements of 'traditional colour theory', avoidance strategies in art classes are common among students.

Importance and treatment of colour contrasts among teachers

'Traditional colour theory', which includes the seven colour contrasts, is part of most elementary and middle school teachers' understanding of the subject and is hardly ever questioned. While the pupils' lifeworld experience always remains present when dealing with these colour-theoretical elements and continues to determine their actions, the teachers almost completely ignore the students' perspective because they are so strongly fixated on teaching the 'traditional colour theory'. This duality between experience and theory often leads to considerable conflict between students and teachers, and sometimes even among students themselves [3 p.299f].

As far as the analysis of art works is concerned, the images are often selected by the teachers primarily because they can demonstrate specific, preferably many, or even all colour contrasts (3 p.236). In the production of art works, on the other hand, the task formats are so closely tailored to the 'traditional colour theory' that the results are mostly uniform. The jungle picture with a red contrasting motif (e.g., flower, animal etc.) in it can almost be considered a classic image. [4 p.109f]. From the point of view of the followers of the 'traditional colour theory' the appropriate task is to combine the images two main aspects: the mixing of green tones from yellow and blue and, at the same time, illustrating a complementary contrast (Figure 4).

Figure 4: Art lesson in a German comprehensive school in 2010. The teacher tells the pupils to avoid stereotypically shaped trees, whereas the uniform colouring of the paintings is not criticized but expected, being an integral part of the task given [3 Image TnB3l-35 on CD].

This type of formulaic exercise - which is nothing other than traditional colour theory with its abstract conceptual knowledge - does little to improve student's thoughtful use of colour. Apart from the fact that the teachers must admit that the pupils' work reflects rather little in terms of creativity and individuality, they can clearly feel the disinterest, lack of motivation and lack of sustainability in absorbing and understanding the subject matter by the pupils. Thus, teachers and students alike are victims of the 'traditional colour theory' with the seven colour contrasts as its integral part. [4 p.300].

Conclusion

Itten's colour contrasts have become widespread and well-known throughout the world and thus represent a cultural asset of international character that remains undisputed. If we take a closer look at this cultural asset, which includes the numerous subsequent editions of his *The Art of Color*, we can see that the colours of the illustrations have changed significantly in some cases, such as between the first (1961) and the second (1973) editions, as shown in Figure 2. of Part II. of this article. However, if one considers the relationship of colour contrasts to specific colours (see section *Importance and treatment of the colour contrasts among children and adolescents*, on Pages 173 and 174), then these colour changes have no influence on the significance of the colour contrasts.

But this is exactly the problem in practice. The colour contrasts were originally compiled for the purpose of describing the colourfulness of artworks and coloured designs[3]. Due to their abstract character, however, the contrasts cannot do justice to this claim. This disconnect leads to considerable problems in the classroom, both with regard to grasping the phenomenon to be described (colourfulness of artworks / designs) and also to the behaviour and relationship of pupils and teachers. Colour contrasts should retain their due position as a cultural achievement, but in future their role should be reduced in colour education in order to expand students' exposure to more effective exercises and concepts for describing colours and colour combinations.

Colour is a pre-verbal phenomenon and cannot be adequately and completely captured by language. And yet, in the classroom, we must also use linguistic means to talk about this phenomenon. It is therefore necessary to choose a way of speaking that comes as close as possible to the phenomenon, which the abstract terms of the colour contrast canon do not achieve. The philosopher Ludwig Wittgenstein [7-8] provides decisive hints that "colour teachers" can use for orientation. Wittgenstein assumes that our perception of and thinking about colour and colours are reflected in our everyday language, for example when we refer to colours as light, as dark, as dull, as strong, as greenish or as bluish, and so on. Theda Rehbock [9-10] has brought together the scattered statements in Wittgenstein's writings on this aspect in an orderly fashion and coined the term 'phenomenological grammar of colours' for them. Colour theories or colour systems, such as those of the artist and art educator Albert Henry Munsell [11-12] or those of the phenomenologically oriented researcher Ewald Hering [13], show a high degree of compatibility with this phenomenological grammar of colours. This is why they are suitable as a linguistic basis for the isolated aspect of describing and capturing the colours of coloured phenomena and play a central role in current approaches to dealing with colour [4, 14].

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[3] See in more detail in Part I. of this article.

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