

The Doctoral Programme of the Hungarian Academy of Fine Arts

Notions of colour

Theses

Kis Sándor Lajos

April 2010

Consultant: Professor Dr. habil, DLA Szabados Árpád

Notions of colour

For my research subject, I have chosen the most important tool of my work as a painter: colour. This is a phenomenon which our age does not treat in the appropriate manner and which is the subject of a lot of misunderstandings and uncertainty among practicing artists.

A thorough and comprehensive examination requires a new point of view.

My task is to define the aforementioned point of view and mark the direction for moving forward.

What is colour?

Colour is thought. While this statement is a cliché, if we attempt to explore its trueness to reality, we encounter a number of unavoidable, perplexing questions and facts which require clarification:

1. The first one of these is the physical uncertainty regarding the nature of the phenomenon.¹
2. Frequency and wavelength data (which can be measured with specific devices under laboratory conditions) are insufficient as the characteristic properties of colour.
3. Origin and perception of the phenomenon, are determinative its unique, distinctive, and subjective nature.
4. Research on the biological and chemical processes associated with the human eye in recent years has shed some light on the origins of thought-generating colour stimuli.
5. Following a review of the above, I discuss two unique but invisible values (black and white).²

As a next step, I feel it advisable to separate the discussion of the subject according to artistic and scientific considerations.

Science, colour, science of colour

Various systems of colour that have been created with the objective of reaching practical goals, and then concludes with a summary of the technical aspects, or additive and subtractive colour mixing have no connected with art.³

As, of the sciences, philosophy is closest to art, I must refer to some opinions here:

¹ Antal Nemcsics, in his book about colour dynamics, [1] defines colour, firstly, as harmonic vibration, secondly, as magnetic disruption, and, thirdly, as a flow of quanta of energy.

² I compare the technical-scientific definition – grounded in the guidelines laid down by the International Commission on Illumination (C I E 1931)[2] – with Goethe's intuitively-based notions.

³ ex.: Grassman, his laws, and Coloroid, which has been accepted as the Hungarian colour standard...

- While Kant recognises the importance of colour in the fine arts, he finds its role secondary in significance to that of easily intelligible forms.⁴
- Goethe's Colour Theory, which is based on his own personal observations and impressions, and which contradicts the results of Newton's earlier experiments, thereby sparking major debate.
- Wittgenstein seeks comprehensive results. Instead of focusing on the direct links between shades of colour, he is more interested in the wider logical connections. He wishes to establish the kind of unambiguousness that is customary in science by incorporating areas that have been neglected by previous studies. He doubts the existence of primary colours and indicates the uncertainty of linguistic forms. While mocking the schemes used by painters, he regards the establishment of a general colour system necessary but difficult to realise.
- Hacker draws parallels between painting and music and then goes declares the one-sidedness of the scientific approach to the subject.⁵
- Barthes speaks about the discontinuation and disappearance of colours. Or, to be more precise, in his works, he attempts to palpate the ultimate boundaries of aesthetics, where the means of expression in conjunction with the contextual and professional essence of art becomes progressively weak, until it ceases to exist and gives way to silence, to absence. Barthes, as a theoretician of pop art says that the colourless variegation of artworks produced in the second half of the 20th century is unacceptable.

Historical category

In writings about colour, we face the inaccuracies and insufficiencies of linguistic forms and concepts. When studying and tracing the symbols and preferences of the different ages, a familiarity with the paints and dyes used for creating the artificial environment is essential. At the beginning of the 20th century, European painting refutes the predictability of changes in art in a retrospective sense as well.⁶

In spite of a progressive increase in the number of colour names, our everyday vocabulary is rather meagre; we tend to express ourselves by making less and less subtle distinctions. The reason for this lies in an apparent disinterest in the subject, which, eventually, leads to a general

⁴His position has become obsolete as, in the spirit of late 18th century rationalism, it disrupts the unity of artworks.

⁵Oscillation = the presence of energy. A measurement of vibrations does not provide a sufficient basis for the comparison of colours.

⁶In support of this, I uncover the theoretical background of Mondrian and Doesburg's work.

loss of confidence. Analyses on the use of colour tend to be published more in the fields of literature and music and only rarely in the sphere of visual culture.⁷.

A crucial element of human contact

Oskar Bätschmann, in his book entitled *Guide to Interpretation: Art Historical Hermeneutics*,^[5] discusses his doubts regarding the conceptuality and value of colours in a separate chapter: Although the author has previously stated that images cannot wholly be described in words, he still attempts to do just that, he insists on it. As he sees complexity as becoming progressively denser, what becomes realisable is not a direct capturing of colour, but a linking of colours with other elements of depiction.⁸

Lectures of József Hámori and Tamás Freund - held in June 2005 - on the one hand contradict Oskar Bätschmann's principles on the other hand they say that significant scientific assistance to further researches. ^[6]

Hámori, in studying human thinking, divides the operation of the central nervous system in accordance with the left and right cerebral hemispheres, also discussing the interdependence of the various brain centres. While the left hemisphere is the seat of logical, verbal thinking, it cannot effectively function without well-developed emotional and artistic intelligence, which is associated with the right hemisphere.

Tamás Freund speaks about the cells, structure and operating mechanism of the cerebral cortex. From his lecture, it becomes apparent that memory images and inferences are a result of the simultaneous discharge of a network of neurons; a specially regulated type of brainwave activity. We also find out what provides this surface and synchronisation, and how. This unique, complex inner world – which can be developed with the help of our artistic experiences –, by way of its original impulses, is also the vital spark of our creativity.

The subject of individual perception

I do not disclaim the results of physical, physiological, historical, semiotic and other researches and their further possibilities and I wish to draw the attention to the fact, that these core and distinctive attributions cannot be approached in different ways.

⁷ Some professional communities – for example painters and horse breeders – understand each other perfectly.

⁸ Nature of perception is denied the claim

I aim to illustrate, through the colour analysis of selected historical and contemporary paintings, the endless possibilities at the disposal of artists:

- In conjunction with presenting Fra Angelico's masterpiece, I describe the Cennini method, which was uniquely tailored for his person and was virtually the last method he used. Then I refer to the significance and limitations of the general norms and rules of painting.
- Giovanni Bellini offers an opportunity for evaluating the effects of multilayered transparent surfaces and the properties of oil paintings made with the layering technique.
- Discussing the works of Geertgen tot Sint Jans allows me the opportunity to touch on the natural dissonance between colourings, and its artistic function.
- In Pontormo's fresco, the illusion of space is produced not by the overly complicated method of drawing in perspective – which at that time was used virtually by everyone –, but the order that is created through the utilisation of colours characteristic of the technique. His oil painting reveals a rhythmic alteration and movement of hues.
- In relation to Cézanne's painting, I will discuss its scale-like feature and the function of optical vibration created by different hues.
- József Koszta's painterly behaviour significantly differs from that of his French contemporary. I draw this parallel to illustrate how the unfolding of the colour values of artworks is not influenced by the rhythm and conditions of their creation.
- The analysis of an unfinished work by Gustave Klimt provides an excellent opportunity for discussing how and why this artist, who initially strove for formal perfection in his paintings, turned towards colour.
- Emil Nolde's use of the paint offers a chance for introducing *a la prima* painting and colour mixing, which is also widely used in our present day.
- Josef Albers' exceptional attraction towards colours is demonstrated, firstly, by an analysis of one of his early glassworks and, secondly, by a study of a piece from his "Homage to the Square" series.
- In parallel with the expansion of Mark Rothko's oeuvre, his paintings grew progressively paler, his unshaped surfaces turned increasingly more pained. To the observer of a later age, it seems that this appearance, which could be regarded as "ugly" in the traditional sense, is well suited to authentically convey the general feeling of the second half of the 20th century.

- Ilona Keserű, „Kint-bent, Pillantás az időbe 2” (Outside-Inside, A Glance into Time 2): I explore the relation of colours in the paintings not in themselves or in comparison to one another, but by conjuring up an earlier installation.⁹

- Finally, I prove through describing one of Enzo Cucchi’s 1984/85 works how, aside from the numerous virtues of traditionally-made oil paintings, an obvious lack of colour can become interesting.¹⁰

Summary

I consider colour as a constantly changing, almost living phenomenon.

Traditional artistic ways can lead to apperception, experience, creation and conveyance of colour notion. This fact and statement is backed by scientific results. **Our knowledge on colour can be widened much more effectively by getting deeper knowledge on reasoning, thinking, and perception and sensation, than the advance of physics.**¹¹

[1] Antal Nemcsics, *Színdinamika, Színes környezet tervezése* [Colour Dynamics, Designing an Environment of Colour], Akadémiai Kiadó, Budapest, 2004. p.29.

[2] Commission Internationale de l’Eclairage

[3] Róbert Balogh, “Kép az emberben, Beszélgetés Keserű Ilona festőművésszel” [Image in Man, Conversation with Painter Ilona Keserű], *2000 (periodica)*, 2000. Volume 12. Issue no. 9. pp.3-8.

[4] [http://www. passheword.org/DIALOGS-FROM-PAST/waychrst.htm](http://www.passheword.org/DIALOGS-FROM-PAST/waychrst.htm).

[5] Oskar Bätschmann, *Bevezetés a művészettörténeti hermeneutikába, Képek elemzése*, [Guide to Interpretation: Art Historical Hermeneutics, “Interpreting the Image”] Corvina, Budapest, 1998.

[6] Művészet, Tudomány, Társadalom konferencia a Magyar Tudományos Akadémia, a Magyar Képző és Iparművészek Szövetsége, a Magyar Írószövetség rendezésében [Conference on “Art, Science and Society”, organised by the Hungarian Academy of Sciences, the Association of Hungarian Applied and Fine Artists, and the Hungarian Writers’ Association], MKISZ, Budapest, 2007.

⁹ Later, I write a few sentences about some of her notions, which have appeared in print, regarding colour. [3]

¹⁰Not even a green spot – believed to be neutral by harmony-seeking colour theorists – can be seen. The power of expression, however, is not in the least lost.

¹¹There is no convergence between the results of art and science.