

Hungarian Academy of Fine Arts  
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## Complementary in Photography

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My research has led to the fundamental methodological claim that the practice of making art and its fruits allow one to draw conclusions that complement and/or reflect on theory. From my position as an artist I made an attempt to synthesise perspectives that may impact future research involving specific topics.

In short, my findings have been shaped by the intrinsic nature of the work.

My works have focused on three major fields and their overlapping meaning.

1. photography
2. colour theory (complementarity)
3. education

## 1.

- In my opinion, one of the important features of photography is that it is simultaneously the medium and subject of its own investigation.

While this special attribute is present in every photograph, it does not advertise itself as a medium specificity in all images. Having been preoccupied with photography's medium specificity for quite some time, medium-specific features have come to dominate my work. In the course of exploring colour theory, as if by magic the photograph, the medium and subject of the experiment, appeared to slip into an alternate state and become the medium of the experiment.

As a result, the same medium offered two distinct fields of investigation with the boundaries between the two becoming highly ambivalent.

Experimenting with colour shadows, as I worked on the images (documenting all the variables) I developed a hypothesis to offer a psychological explanation for the phenomenon.

Working with photographs, I arrived at the conclusion that what we see is in fact an optical illusion, although the illusion does not lie in seeing grey shadow as having colour, but in seeing colour background as white.

- The photograph carries a number of other media specific possibilities: the ability to record movement in progress through long exposure is one of its other unique features. The blurred image may yield an effect that, compared to the initial state, adds to the content. Using this tool I made visible the lessons of optical colour mixing and at various exhibitions I hoped to share with others the lessons of personal observations.

- The photogram is of fundamental importance on several levels: it is yet another essential media-specific feature of photography. Moreover, the photogram may be helpful in examining various issues related to visual perception. As a positive image, the photograph cannot be used for that purpose: looking at an image with positive colour values we may encounter the same factors affecting perception as we have seen in the original experiment and become the victims of optical illusion. Thanks to its inherent nature, in some instances the photogram is capable of eliminating one of the standard pitfalls identified in colour theory experiments: the manipulability of the visual apparatus.

This proposition has been demonstrated by the photograms I made studying colour shadows.

- In my experiments with colour photograms I made additional medium-specific discoveries. This involves the phenomenon of auxiliary density, a specific feature of colour photographic material not seen in other media. It does not even show up in traditional photo printing; the phenomenon becomes visible only in colour photograms.

- Based on these experiments, in my essay I summarize the method of making photograms.

## **2.**

In respect to colour theory, one of my important conclusions is that photography offers us the potential of a broad-based consensus. To this day there is no comprehensive, universal theory of colour acceptable to all those concerned. All disciplines in need of colour theory perfect it according to their needs without showing solidarity with others. While as an artist I am not an expert in any scientific discipline, I had to immerse myself in several areas

to develop a coherent theory for myself and my essay. I believe that with the help of photography we can bridge the gap between mutually contradictory positions. I consider photography to be pre-eminently suitable for the purpose as it represents a bridge between additive and subtractive systems, a capacity not given to any other discipline. Leaving no paper-based traces, digital technologies cannot be used to make the argument.

I arrived at this conclusion while making colour photograms.

## **3.**

A new understanding of colour based on consensus may lead to a new method of teaching colour theory. I believe that instead of acquiring a vague knowledge of primary and complementary colours, students should learn through personal experience that, for instance, colours exist only in context (standing by itself, colour has no meaning). Over the past two years I have acquired much experience in teaching about colour. In class meetings we arrived at the theory of colour and an understanding of colour through an examination of various qualities of light.

I found teaching based on experiments and personal experience highly rewarding. I believe that computers and electronic devices define our lives to such an extent that we could benefit from their use in teaching colour theory. For obvious reasons, these devices could not have had an impact on methods currently used in teaching art and visual culture, simply because these had been developed well before the digital revolution. My experience has led to the conclusion that our current educational practices are ripe for change.

A close examination of the quality of colours making up light offers a simple and logical progression leading directly to the characteristics of pigment colours.

In my experience, light-based experiments and demonstrations are the most suitable in teaching the fundamentals of colour theory. Through the simple and visually stunning

method of additive mixing, in two steps one arrives at the fundamentals of optical and subtractive colour mixing through personal experience. In fact, courses of any length can be designed based on information deduced from the colours of light.