As a Suprematist painter, Ivan Kliun is known for the group of very spatial compositions in which planes of colour hover in the white space of the canvas. Thin lines and small rectangles are placed so as to create relationships of movement and expand the space visually in the four directions of the pictorial surface as well into its depth. Kliun must have shown several of these paintings in the November 1916 Moscow exhibition, Knave of Diamonds.

In this group there are oils and watercolours in museums and private collections dated variously, 1915 and 1921, while others are thought to date from the mid-1920s and there is even one of 1930-2. This reveals a very particular aspect of Kliun’s painting practice: he often went back to earlier styles. The reason for this has so far not been explained or, it seems, even investigated.

Recently, a large oil on canvas, 100 x 74 cm., was submitted to the art historian, Patricia Railing, and the scientific expert, Erhard Jägers, for examination and expertises. Before proceeding, Patricia Railing consulted Dr. Jägers about the pigments he had found, hoping to be given clues that would help to date the painting. Dr. Jägers’ findings were more than clues, for his information linked into a number of factors about Kliun’s painting and, significantly, contributed valuable new information about the artist’s creative practice and the history of Kliun’s investigations into colour.

The Pigments

In his scientific report, Dr. Jägers found several of the pigments of Kliun’s standard palette, in this case, cadmium yellow, Prussian blue, a mixed Prussian blue and yellow ochre, brown ochres, umber, and iron oxide black. The ground was painted in zinc white, and on the yellow, blue and grey planes he found touches of titanium white.

Now the presence of titanium white is usually not music to the ears of scientific experts or art historians because it has been supposed – based on very incomplete information – that it is a pigment to be found no earlier than 1920. This would generally be later than most Russian Avant-Garde painting of the first generation of artists.

The art historian, Patricia Railing, was not overly bothered by the presence of titanium white since, given Kliun’s practice, the painting could credibly be of the 1920s. Her questions, then, were two-fold: what was the reason for doing a purely Suprematist painting sometime in the 1920s? and why would the artist have used titanium white especially in touches only on certain surfaces and not in the ground?

Kliun’s Interest in Wilhelm Ostwald’s Colour Theory

In 1931, Kliun published a paper he had delivered as an article, “The Problem of Colour in Painting” (in, The Painter’s Business/Maliarnoie delo, organ of Painting and Construction and the All Chemistry Industry, No. 2, 1931). In it, Kliun asserts that colours have a natural relationship to forms and this is what makes a painting appear to be harmonious and balanced, or not. He says he established these relationships based on years of painting and on discussions with artist friends and members of the public.

Kliun contrasts his findings with those of scientists who have investigated colour. He quotes passages especially from the study of the German scientist, Wilhelm Ostwald, whose
Colour Science (Farbkunde, 1923) had been published in Russian translation in 1926. Most scientists, Kliun writes, had investigated the colours of the spectrum while an artist is working with the colours of pigments. As the laws of these two systems of colour are not the same, the findings of the scientists are generally not applicable to painting.

Ostwald’s standard system, however, does concern pigments, and the scientist admits that “the pure art of colour” could be considered by his system. He went even further to say that “the beauty of colours is very much dependent on the forms which they comprise”. Kliun quotes these passages in his article in support of his own conclusions and they reveal one reason why Kliun was interested in the scientist’s colour system.

A basic principle of Kliun’s colour theory concerns the way degrees of colour intensity act on the pictorial surface and so create balance in the plane or create depth and space. This would be another factor that had interested the painter in Ostwald’s theory, since the scientist’s colour theory was based on degrees of intensity of colours and their harmonies. For Ostwald, this was a means for being sure of colour balance and harmony in the painting.

Ostwald’s Colour Theory and Kliun’s Painting

Ostwald demonstrated that when colours are graded between white and black according to proportional equivalences, the results are harmonious. He considered this to be of great significance for artists.

In his little Colour Primer/Die Farbenfibel, published in 1916, the scientist presented a chart in which a saturated yellow is graded with determined amounts of white pigment which give stages of increasingly paler swatches of yellow. He also demonstrates the stages of browns when certain amounts of black pigment are mixed with the saturated yellow. The gradations between the white and the black produce harmonious greys. Ostwald calls these “equations of white” and “equations of black”.

Now in Kliun’s painting, a saturated yellow plane is near the surface, beneath which are three brown planes. When compared to Ostwald’s Colour Plate IV, the yellow and the brown planes appear to be precisely the same colours.

In Colour Plate V, Ostwald presents the sets of complementary colours of yellow and ultramarine blue. Here are the same gradations of yellow between white and black as in Colour Plate IV, and they are now set against a saturated blue which has been proportionally graded up to white and down to black.

The blues are also found in Kliun’s painting, but the artist has captured the several gradations in a single plane which is set just underneath the yellow plane. Kliun has structured the two planes on the basis of complementary contrasts of colour as shown by Ostwald in Plate V.

The large grey-green plane that visually supports the main central arrangement in Kliun’s painting is a mottled grey, the pigments handled in a subtle movement of the stages of the greys as they are found in Ostwald’s Colour Plates IV and V.

The conclusion is obvious: Kliun was experimenting with Ostwald’s colour theory to discover if, when saturated colours are graded in “equivalences”, they do indeed produce a harmonious relationship of colours. The artist augments this by the use of complementary colours both as in Ostwald’s chart and as had been being practiced by all the Russian Avant-Garde abstract painters.

Kliun must have been convinced of Ostwald’s standard
The Need for Titanium White

In such an exploration, Kliun could easily have been attracted to titanium white. It was a fairly new artist’s pigment – although it had been around since the late 19th century, used for painting ships. More archival information is necessary to determine when it came into use as an artist’s pigment, although it is known that colourmakers in Paris were mixing it with other white pigments by around 1900, which is why it is sometimes found in small amounts in the ground of paintings.

The attraction of titanium white is that it is an extremely white pigment. Ostwald suggests using barium sulphate for its pure reflective quality, a pigment commonly used by Russian Avant-Garde painters, while the scientist says that zinc white reflects only 92% of light and chalk white only 80%, this pigment also having a yellowish tint which makes it unsuitable for pure gradations.

If he was exploring Ostwald’s colour theory of grading a saturated colour between the purest white and the purest black, Kliun needed to use the whitest white and the blackest black. He chose titanium white and iron oxide black.

The Significance of Kliun’s Painting

Although there would have been no challenge to the authenticity of the Kliun painting due to the presence of titanium white, its presence and the mention of Wilhelm Ostwald in Kliun’s article opened up new possibilities for research into the artist’s colour work.

Kliun was fundamentally a colour painter. From the time of his first experiments with pure colour in 1914 to his last colour chart of 1942, “About the Problem of Composition”, a year before his death, he seems to have done nothing but investigate colour, as colour, in his painting. In his memoirs, Kliun lists all the colour theories he had investigated. That he should experiment with the possibilities of Wilhelm Ostwald’s theory is natural enough, then, and this painting of the late 1920s is a wonderful example of how Ostwald’s “equations” of colour could be used in Suprematism.

For Suprematism is the art of colour itself, of pure colour, as Kliun said in his article. In this Suprematist painting, Kliun has taken two colours, yellow and blue, and carefully measured the amounts of white or black added to the saturated pigments in order to arrive at balanced gradations either towards white or towards black. Being enlivened by the principle of the complementary contrast of colours, the painting is dynamic, as is its arrangement of pictorial elements. The colours being proportionally graded, the painting is balanced and harmonious.

Kliun’s Suprematist painting is an excellent demonstration of how colour theory can be adapted for pure painting, providing sources for new creative possibilities.

Conclusion

In this collaboration between art historian and scientific expert, knowledge of the pigments led to looking at Kliun’s article of 1931, the discussion of Wilhelm Ostwald’s ideas providing a clue to the colour theory that the artist could have been using.

This, in turn, led to discovering that Kliun was applying the principles of the scientist’s theory of colour gradations of equal value because controlled changes in colour intensities were a means of controlling Suprematist space in layers or in depth.

The presence of titanium white is now shown to be necessary for the accuracy of the graded colour planes in Kliun’s painting, which is why it appears only on the yellow, blue and grey planes.

As for the date of the painting, Kliun would have executed it based on full knowledge of Ostwald’s Colour Science only after its publication in Russian in 1926 (Tsvetovedenie). It contained Ostwald’s, The Ostwald Colour Album of 680 colour swatches with which to construct proportionally graded colour relationships so, even if Kliun did not have a copy of the Colour Primer, he could have made his own chart based on Ostwald’s system. (The Colour Primer, however, had been circulating in Moscow before the appearance of Colour Science; it saw fifteen editions due to its popularity with artists Europe-wide.)

Such an art historical journey into a new aspect of the creative process of Ivan Kliun was only made possible by the knowledge of the pigments used in the painting discovered by the scientific expert.

This interdisciplinary exchange has thereby enriched our knowledge of the colour art of Ivan Kliun, and it has led to the possibility that, due to Kliun’s investigation into other colour theories, a comparison of his painting and these theories could lead to a more thorough understanding of Kliun’s creative process with colour itself.

Patricia Railing, Erhard Jägers
References


