# The Influence of Retinal Eye Diseases on Painting

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## ABSTRACT

In this work the possible influences of some retinal eye problems on paintings of several famous artists are considered. The change of painting styles and artistic expression in different periods and ages in a group of world-wide well-known painters are described and correlated with known or suspected retinal diseases. Some of them largely became recognizable because of that. Contemplations are offered about the effects of retinal diseases in the works of Degas, Munch, Cézanne, O'Keeffe, Constable and Goya. Retinal eye diseases have a significant impact on the work of selected famous painters.

Key words: retinal diseases, painting

#### Introduction

Many well-known painters had various eye diseases<sup>1–3</sup>. Some eye disorders influenced their work at least at certain periods of their life.

The aim of this work is to show what influence of the different retinal diseases had on paintings of several famous artists and how they saw and experienced the world around them. The sight is more important for painters than for other people because vision is more important for painting then other senses.

Contemplations are offered about the effects of retinal diseases in the works of Degas, Munch, Cézanne, O'Keeffe, Constable and Goya.

These painters are selected because they are known for having retinal diseases or are suspected to have them. Retinal diseases, nevertheless hereditary or aquired, in those painters can affect vision on different ways: deteriorate visual acuity, cause changes of colour vision, make central scotomas, sometimes opacities in the visual field.

Edgar Degas (Paris, 1834 – Paris, 1917), French impressionist, famous for his portraits and ballerinas had juvenile macular degeneration.

1870 when he was 36 years old he was a soldier in French-Prussian war and he noticed while shooting that he could not see a rifle target with his right eye. From 1871 onwards when he was in New Orleans with his brother a strong daily light started to bother him. Degas found brigt lights intolerable and was forced to work indoors. The theatre was conductive to his glare problems, and his paintings of the ballet and the opera remain his most famous works. The problem with sight were becoming stronger and caught the left eye. By his forties, Degas developed a loss of central vision. The painting became increasing problem and he was forced to paint around his scotoma. Degas changed media from oils to pastels, which are looser and easier to work with, dry slowly, and require less precision. Later he discovered that it was easier for him to paint subjects from photographs. Despite this his pictures become increasingly coarse and blurred and exibit a clear loss of shape in comparison to his earlier works (Figures 1 and 2).

1891, at age 57, he could no loger read. In old age Degas also had difficulty recognising colours. Degas' later work is dominated by red, whereas blue is used rarely. He tend to choose stronger colours because he percieve a colour's intensity more weakly. From 1903 onwards the sight was so bad he turned to sculpture. Degas asked many ophthalmologists for advice among them Edmond Landolt. He was diagnosed with »chorioretinits«, a term then used commonly to describe a variety of eye conditions<sup>4</sup>.

The early loss of central vision, difficult distinction of colours, the disturbance of strong light shows that Degas had the hereditary macular degeneration. His sister-inlaw and the first cousin, Estelle Musson de Gas at age 25 she lost all useful vision in her left eye and by age 32 she was blind in both eyes. That confirms the heredity of the illness. (His first cousin, Estelle Musson de Gas, had similar findings makes a familial form of macular degeneration an interesting possibility<sup>5</sup>.

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Fig. 1. Early work of a dancing ballerina, 1878.



Fig. 2. Later work of a bellerinas, circa 1905.

It is possible that some of Degas' greatness as an artist is attributable to his visual loss. The influence of his eye disease on his paintings Renoir described best: »Had he died at 50, he would have been remembered as a good, competent artist, nothing more«.

Edvard Munch (Løten, 1863 – Ekely, 1944), Norwegian expressionist. His most famous image was The Scream from 1893. In short period of life he suffered of consequence of central retinal vein occlusion and vitreous haemorrhage.

Edvard Munch developed a »haemorrhage« in the vitreous of his better right eye at the age of sixty-seven, in 1930<sup>6</sup>. The resulting opacity that cast its shadow on the retina was the more intrusive because of his other eye was already poor-sighted; and the shape of the bird with a long beak began to insinuate itself into his paintings as the dominant subject of the world he depicted (Figure 3)<sup>7</sup>.

Paul Cézanne (Aix-en-Provence, 1839 – Aixeu-en-Provence, 1906), French post-impressionist painter. He

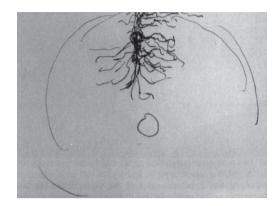


Fig. 3. T2136 Image of his intraocular debris appeared as a circular haze with a dense branched figure at its upper edge resmbling him of a bird, 1930.

was an important bridge between Impressionism and a new line of artistic enquiry, Cubism. He got diabetic retinopathy which causes blue-green colour blindness and his later paintings became more subdued. His »sick retinas« and the visual deterioration in the latest part of his life also explaine a change from realistic to abstract paintings. Without them we might never have had cubism, abstraction and beyond.

A large number of the Impressionist painters were »nearsighted« like Cézanne. He refused to correct with the use of glasses, which he deemed »vulgar things«.

In 1890, at age 51, Cézanne was diagnosed diabetes. A triggering factor of Cézanne's diabetes was emerald green poisoning caused by his painting »à la couillarde«, that is, crude painting (with his fingers). Diabetes induced concurrent retinopathy (Figures 4 and 5).

After a chill sustained while doing an open-air painting of the Sainte Victorie mountain, Cézanne slipped into a diabetic coma and died six days later of pneumonia<sup>8</sup>.

Georgia O'Keeffe (Sun Prairie, 1887 – Santa Fe, 1986), was an American artist. She is the best known for her impressive paintings of flowers and vistas and subjects of the American Southwest. With advancing age came severe loss of vision due to age related macular degeneration and central retinal vein occlusion.



Fig. 4. Sainte Victorie mounatain painted from 1887–1890.



Fig. 5. Sainte Victorie mounatain painted from 1894–1900 after the deterioration in his blue-green vision as a consequence of his diabetic retinopathy.

O'Keeffe first noticed the symptoms of macular degeneration in 1964. She was 77 that year. She had a severe exudative senile macular degeneration. She came under the care of laser photocoagulation. The left eye had the typical haemorrhagic vascular changes of a vein occlusion that had occured in 1971. Her vision was less than 6/60 in both eyes and not improvable with glasses. The Black Rock series occupied O'Keeffe between 1970 and 1972, a time when her vision was failing to critical levels with central black scotomas which reflect on her paintings (Figure 6). She turned to sculpture as a more tactile artistic medium when she found it difficult to paint in oils, due to her poor eyesight. She had a family history of this disease, which depends in part on hereditary predisposition. Her maternal grandfather suffered from it<sup>9</sup>.

John Constable (East Bergholt, 1776 – London, 1837) was an English landscape painter.

His most famous paintings are Dedham Vale, 1802 and The Hay Wain, 1821. He has been considered colour deficient. Constable was probably partially red-green colour blind because of his emphasis on greenish and yelow tones and his spare use of reds. His paintings often look autumnal (Figure 7). Swiss-English painter Henry Fuseli once wrote to his colleague Sir David Wilkie, »I like the landscape of Constable, but he always makes me call for my greatcoat and umbrella«<sup>10-12</sup>.

Francisco Goya (Fuendetodos, 1746 – Bordeaux, 1828), Spanish painter. One of his most famous work is The Nude Maja. The nature of his illness probably was autoimune disorder Vogt-Koyanagi-Harada syndrome.



Fig. 7. Hampstead Heath, 1824. Constable has been considered colour deficient because of a preponderance of suspicious colour, such a murkly green.



Fig. 8. Prateria di San Isidro, produced in 1788 is festive, full of the joy of life.



Fig. 9. San Isidro Pilgrimage in 1820–23 is horrendous: the crowd, which is in procession, is made up of men and women singing salms with their mouth wide open, their eyes looking upwards, their faces that look like masks.



Fig. 6. Black Rock with Blue Sky and White Clouds, 1972.

His latest works are considered to be forerunner of the Impressionism. At the age of 47 he probably got Vogt-Koyanagi-Harada syndrome or uveomenigoencephalyc syndrome. A disease affected his vision, hearing and balance. The whole good mood and colours vanished completely from his paintings and his painted characters became sad, unhappy and often frightening and horrible<sup>13</sup>. The period of Goya's artistic output known as the »Black paintings« have been created during the time he had the disease (Figures 8 and 9)<sup>14</sup>.

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# Conclusion

The ocular problems may give another dimension of the painter's work and have importance in determing the artist's style. In particular period of life of some painters, retinal diseases had very big influence on their type of painting and artistic work. Maybe the works of certain well-known painters with retinal diseases might be considered to be a link to the abstract art.

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### UTJECAJ RETINALNIH OČNIH BOLESTI NA SLIKARSTVO

## SAŽETAK

U ovom radu razmatra se mogućnost utjecaja retinalnih očnih bolesti na slikarstvo u nekoliko svjetski poznatih umjetnika. Opisan je odnos između promjena u stilu slikanja i umjetničkog izričaja u različitim razdobljima i dobi života kod svjetski poznatih slikara za koje se znalo ili sumnjalo da imaju retinalne bolesti. Neki od njih postali su po tome prepoznatljivi. Iznesena su razmišljanja o djelovanju retinalnih bolesti na radove Degasa, Muncha, Cézannea, O'Keeffe, Constablea i Goyae. Retinalne očne bolesti imaju značajan utjecaj na rad navedenih čuvenih slikara.