

THE VISUAL DIFFICULTIES OF SELECTED ARTISTS AND LIMITATIONS OF OPHTHALMOLOGICAL CARE DURING THE 19TH AND EARLY 20TH CENTURIES (AN AOS THESIS)

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ABSTRACT

Purpose: To investigate the effects of eye diseases on several important artists who have been given little attention from a medical-historical viewpoint. The examples chosen demonstrate problems artists have had to face from different types of eye disease, including cataract, glaucoma, and retinal diseases. The ophthalmological care provided is described in terms of scientific knowledge at the time.

Methods: Investigation of primary and secondary source material. Discussion with art historians and ophthalmic historians. Examination of work by the artists.

Results: Artists can be markedly affected by ocular diseases that change their ability to see the world. The individuals described here worked during the 19th century and first half of the 20th century. Homer Martin suffered from cataracts, and his works reveal changes in details and color as he aged. Henri Harpignies, who had an extremely long career, undoubtedly had cataracts and may also have had macular degeneration. Angle-closure glaucoma blinded Jules Chéret. Auguste Ravier suffered from neovascular glaucoma in one eye and was able to work with his remaining eye, which developed a cataract. Louis Valtat suffered from what was in all likelihood open-angle glaucoma, but specific changes due to this disease are not apparent in his work. Roger Bissière developed glaucoma and did well following filtration surgery. George Du Maurier lost one eye from what was probably a retinal detachment and later suffered from a central retinal problem in the other eye.

Conclusions: Diseases of the eye may profoundly influence artists by altering their perception of the world. The specific effects may vary, depending on the disease, its severity, and the psychology of the artist. Cataracts typically affect an artist's ability to depict color and detail. The effect of glaucoma generally depends on whether central vision is preserved. Disease that affects the center of the retina has a substantial effect on an artist's ability to depict fine details. Ophthalmological care was limited during the lifetimes of the artists under consideration, by comparison to 21st century standards. When medical or surgical therapy was ineffective, the most important thing a physician could offer these artists was consolation against anxiety and depression.

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INTRODUCTION

Several individuals who are important in the history of art suffered from ocular diseases that affected their careers. Undoubtedly the best-known example is the French Impressionist Claude Monet (1840-1926), whose cataracts were a major problem at the end of his life.^{1,2} His correspondence contains considerable information about his adaptation to changes in his vision. Records from the ophthalmologist who operated on him are available, as are notes of other ophthalmologists who treated him. In addition, several fellow artists, friends, and relatives have provided interesting descriptions of Monet and his eye problems.

Such an abundance of documentation is not typical, however. Many artists have been unwilling to release details about their personal health to the public. Even when the artists are no longer alive, their descendents may have reasons to avoid divulging information. One good example is Mary Cassatt (1844-1926), the American Impressionist who spent most of her adult life in France.³ She was diabetic, suffered from cataracts, and underwent multiple operations on her eyes, only to become unable to paint for the last dozen years of her life. Portions of her letters that describe her ocular difficulties have been released, but long ago the family placed restrictions on the material, which are still in effect. Better understanding of her situation may occur when the restrictive period ends.

In other cases there is precious little data available from physicians' records, so that the artists' notes and creations provide much of the basis of our understanding of their ocular problems. This is the situation for the French Impressionist Edgar Degas (1834-1917), who lost his central vision in one eye while in his 30s and in the other eye 2 decades later.⁴ His notebooks and correspondence give the names of ophthalmologists he may have consulted. A family history of blindness also gives some inconclusive hints. Aside from remarks made by friends and acquaintances, the only other source of information for Degas is the body of work he created.

Medical information accumulated prior to the middle of the 19th century is hampered by the lack of instrumentation to visualize the posterior segment of the eye in a living patient. Without Helmholtz's landmark invention of 1850, the ophthalmoscope, much is speculative. Rosalba Carriera (1675-1757), the Venetian artist known for her portraits, is a case in point. She underwent cataract surgery near the end of her life, but the information available today does not allow us to know why she did poorly.⁵ Analysis of the work of several artists who worked during the 19th century and first half of the 20th century can provide insight into the effect of ocular problems on their production.

METHODS

The major encyclopedias and dictionaries of art have been culled in an attempt to identify every important artist who has been mentioned as having an eye disease. One hundred fifty-seven individuals were found.^{6(pp145-149)} This list was used to identify artists whose ocular problems have not been described in detail and for whom enough data could be obtained to permit description of their diseases and the effects on each artist's oeuvre. Primary and secondary source material was evaluated. The individual cases were

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discussed with historians of art and medicine, and the work of each artist was evaluated. Illustrations were obtained typical of each artist's work. Access to many of these works is difficult, since reference material indicates they are owned by private, unidentified collectors.

RESULTS

CATARACT: THE CASES OF MARTIN AND HARPIGNIES

Homer Dodge Martin (1836-1897)

Although the American landscape artist Homer Dodge Martin is not well known by the public today, his paintings were avidly sought at the beginning of the 20th century. Scholars have reevaluated his work recently and reelevated his status. During most of Martin's career, many collectors in this country preferred paintings made with great attention to details. Martin did not paint this way and never enjoyed financial success in his lifetime. Toward the end of his life, however, collectors and critics began to appreciate the powerful sense of mood and atmosphere his paintings evoke. As one observer noted, "his finest canvases looked as if no one but God and he had ever seen the places pictured."⁷

Martin was able to paint despite having several ocular problems. Family members said his vision was never normal. At the beginning of the Civil War, when he was in his mid-20s, Martin was rejected for military service on account of his poor eyesight. In his 40s he developed additional eye problems—cataracts and optic nerve disease—yet still managed to create fine works.

Martin is considered to be a transitional artist who links two important 19th century schools of painting: the Hudson River artists who were active during the first half of the century and the American Impressionists who followed.⁸ He is known for his depiction of forests, ponds, rivers, and seashore. *Raquette Lake* (Figure 1) was painted when Martin was 33 years of age and is typical of the landscapes he made during the middle of his career. It is a charming but rather bland view in the Adirondacks of New York State.

Martin grew up in Albany, New York, where he was encouraged by a well-known sculptor, Erastus Dow Palmer, but he preferred to learn on his own through close inspection of paintings made by others. As was true for many 19th century artists, he was largely self-taught. In the biography that was published 7 years after his death, Martin's wife wrote that "I doubt if he ever took kindly to lessons."⁹(p5)



FIGURE 1

Homer Dodge Martin. *Raquette Lake*. Oil on canvas, 1869. Private collection/David Findley Jr Fine Art, New York. The Bridgeman Art Library.

During Martin's youth the popular style of landscape painting in America was that of the Hudson River School artists. Their detailed panoramic views of the wilderness were important influences on Martin's early style. A typical Hudson River School painting is full of details and depicts the land enclosed by warm, basking light. The surfaces of these paintings are usually glossy and shimmering.

In his early years Martin spent his summers sketching in the Catskills, the Adirondacks, and the White Mountains. During the

winter he used these preliminary sketches as the basis for more elaborate work composed in his New York City studio. The early works typically feature warm light and glossy surfaces. Martin made his artistic debut at the National Academy of Design in New York in 1857 and exhibited there regularly. Critics praised his work but sales were few.

The style of most artists changes with time, depending on individual interests and the public response. By 1870, when Martin began to paint using broader brush strokes, the detailed Hudson River manner of painting was well past its peak. Martin came under the influence of a French style of painting, the Barbizon school, named for the forest south of Paris where this group liked to paint. Martin was familiar with their work from seeing it in private collections in Albany. He admired their skill in creating sensations of air, atmosphere, light, and shadow. As a rule the Barbizon painters created smaller, more intimate works than did the Hudson River group, and they worked in a looser manner, with individual brush strokes more obvious. Their range of colors was narrower, and earth tones tended to dominate. A sketchbook from 1875 shows that Martin was moving away from the tight drawing of Hudson River artists. Earlier drawings were done in a very linear manner, using little shading. The 1875 sketchbook shows that he was beginning to broaden out his drawing.

That same year, 1875, Martin toured Europe with Dr Jacob S. Mosher, a quarantine physician for the port of New York. He particularly enjoyed painting in the Barbizon forest, not far from Paris. The Barbizon artists influenced him to continue the trend he had begun before leaving America, working in a less delicate manner and restricting his range of colors. The French Impressionists, whose first exhibition took place the year before Martin sailed for Europe, were beginning to have an impact in France. Their landscape paintings made with bright colors and broken brush strokes contrasted boldly with typical features of other contemporary styles of painting.

In the decade of the 1880s, Martin incorporated some features of Impressionism into his paintings by making his brushwork even looser and by employing a broader range of colors. During the 1875 European visit, Martin became friendly with James McNeill Whistler (1834-1903), the American expatriate artist who was nearly his same age. Martin worked in Whistler's studio in England. Under the influence of Whistler, Martin learned to simplify his work, to reduce nonessential items in his compositions.

On his return to the United States, Martin was honored by being elected to full membership in the National Academy of Design. He worked as an illustrator for *Scribner's Monthly*. Although he was actively involved in the artistic community of New York, his sales were poor. In 1880 *Art Journal* noted that Martin suffered from American collectors' preference for paintings made by French artists rather than French-influenced works by American artists.¹⁰

Martin returned to England in 1881, under commission by the Scribner publishing company. He revisited his friend Whistler and again worked in his studio. Martin's wife joined him the following year, and they spent the next 4 years in Normandy. With his knowledge of the Barbizon school and increasing awareness of Impressionism, Martin continually experimented with his technique. He would even use a palette knife to paint, and he broadened his range of tones, using saturated colors. His loose brush stroke is one indication that he knew of the Impressionists, though his stroke was not as free as that of the best-known French Impressionist, Claude Monet. Although there is no evidence that Martin and Monet ever met, they did paint in the same locations during the early 1880s. Monet had a one-man exhibition in New York in 1886, when Martin was back in that city. While Monet and the Impressionists were an important influence on Martin, there are substantial differences in their styles. Martin's brush strokes follow contours more closely than do Monet's. Martin did not share the Impressionists' interest in the effects of light or fleeting aspects of an image. His oils on canvas were studio works, composed after careful deliberation.

As with Monet, Martin suffered from cataracts. Martin's were evident in the early 1880s, when he was about 45 years old. Monet, who was 4 years younger than Martin, did not have his cataracts diagnosed until the second decade of the 20th century, when he was in his eighth decade of life. Estimating the effect of Martin's failing eyesight on his work is difficult. The American paintings catalogue of the Metropolitan Museum of Art describes one of his best known works, *View on the Seine: Harp of the Winds*, as follows: "Martin's poor eyesight may account for the passages of awkward and undisciplined brushwork as well as the enormous size of the poplars."¹¹

Cataracts were not Martin's only ocular problem. His eyesight was never particularly good. According to a family legend, something unusual about his vision kept him from being able to draw a straight line. Even studying mechanical drawing did not help. His wife described the problem as a "congenital inability to see perpendicular lines distinctly. I think I never saw him draw an upright of any sort without first laying his paper or canvas on its side. When the Civil War broke out, shortly before our marriage, and he presented himself for the draft, it was this defect of vision which caused the examiners to reject him."^{9(p8)} His eyesight was noticeably worse during his fifth decade of life. Severe optic nerve damage was identified in one eye as well as the cataracts in both. The cause of the optic neuropathy is uncertain, but may well have been related to the fact that he was a long-term user of alcohol and tobacco. Being impoverished, his nutritional intake was undoubtedly suboptimal. Elihu Vedder, Martin's artistic colleague and friend, wrote that Martin loved to drink beer. When asked if he consumed a bit too much beer, Martin replied, "Why . . . I don't think there is too much beer."¹²

Although he was still able to paint well, letters he wrote in the 1880s are nearly indecipherable. In several he complains of difficulty seeing. In one letter he states, "I must stop now for my eyes are tired; I write such a fiendish hand I fear you can't make out all I say."^{8(p148)} In another he says, "My eyes are getting tired and I must stop."^{8(p175)} Occasionally Martin would blame his visual difficulties on his working conditions, saying he needed "better light to paint in."^{8(p177)} His wife, Elizabeth Gilbert Davis Martin, usually handled their correspondence. She was a professional writer, and her book reviews, novels and translations from French into English accounted for most of the family income. She was also his first biographer.

Mrs Martin described how, in the early 1890s, "I first observed that his eyesight, always imperfect, was becoming still dimmer.

Never till then had I known him to ask any one to trace an outline for him."^{9(p46)} She sent a letter to his ophthalmologist, Charles Bull, MD, asking for a precise description of his ocular problem and received "the painful verdict that the optic nerve of one of them was dead, while the other was partially clouded by a cataract." In her biography of Martin, she explained, "I mention these facts in order that my readers may get an adequate conception of the enormous difficulties under which his latest paintings were begun and finished."^{9(p48)}

Martin's ophthalmologist, Charles Stedman Bull, MD (1844-1911), was an important figure in the history of American ophthalmology. He was a member of the American Ophthalmological Society for 40 years and its president from 1903-1907. He was born and died in New York City and received his BA degree from Columbia College and his MD from the College of Physicians and Surgeons of Columbia. Following his internship at Bellevue Hospital, he studied with several prominent European ophthalmologists. He was affiliated with the Manhattan Eye and Ear Hospital and the New York Eye and Ear Infirmary and was a professor of ophthalmology at Cornell University Medical College. Bull published 46 articles in the *Transactions of the American Ophthalmological Society* alone, including papers on cataract surgery and optic nerve disease, so we can be assured that he was up to date on the diagnoses he made for Martin. His obituary in the *Transactions of the American Ophthalmological Society* says, "His ideals were high, and he lived up to the best standards of professional ethics; a man of strong convictions, he did not obtrude them, but if occasion arose no one had doubt as to where he stood. Of a quick and ready wit, he was a genial companion, and one of the most charming of men in a social gathering."¹³

Despite his poor vision, Martin never underwent cataract surgery. Since he had lost one eye to optic nerve disease, his ophthalmologist must have preferred to defer surgery as long as possible on the only eye useful for this visual artist. The paintings he made toward the end of his life, such as *Normandy Landscape* (1894) (Figure 2), are generally considered to be his best works. They are studio pieces, based on sketches he had made in France about a decade earlier. He and his wife summed up his achievements at about this time. While looking at one of his paintings on exhibition at the Century Club in New York, she said: "Homer, if you never paint another stroke, you will go out in a blaze of glory!" He replied, "I have learned to paint, at last!" and continued, "If I were quite blind now, and knew just where the colors were on my palette, I could express myself."^{9(p49)} Similarly, when cataracts became a major ordeal for Claude Monet during the 1920s, his visual acuity was severely reduced, to what is defined as legal blindness in this country today. Monet adapted by keeping the paints in a regular order on his palette and used a numbering system on his tubes of paint to avoid confusing them.^{1,2}



FIGURE 2

Homer Dodge Martin. *Normandy Landscape*. Oil on canvas, 1894. 26.5×38.3 cm. Toledo Museum of Art, Toledo, Ohio.

When health issues of her husband and their children overwhelmed Martin's wife, she turned to religion. After his death, she spent her last few years in a convent. She compared her husband's vision to that of Samson in the Bible, who was blinded by the Philistines.^{9(p53)} Then she modified her comments to say: "As to his blindness, it never became entire, and having been accustomed from the beginning to defective vision . . . [he] learned to rely almost entirely on his inward vision."^{9(p54)} This inward vision led to severe financial difficulties. They were forced to rely on her writing and his art to subsist. According to a letter that is now at Princeton University, Martin could not even afford to purchase a pair of eyeglasses.

In 1896 a lesion appeared in Martin's throat. It was soon recognized as being malignant and spread to his brain, causing a painful death the following year. He had long enjoyed tobacco and alcohol, and these may have been causative factors.

Following his death, auction prices for Martin's paintings climbed quickly. Some works were sold for many times what their original buyers had paid him. To cite one example, *Adirondack Scenery*, which was painted in 1895, 2 years before his death, sold 4 years later for \$5500. This was 14 times what Martin had received for it. At the time, this was the highest auction price ever achieved for an American landscape painting of comparable size.^{12(p5)} The high prices even brought forgeries of his work to the market. His posthumous fame was a mixed blessing to his wife, who felt vindicated by his increased recognition but was hurt by not sharing in the wealth, which went to dealers. In her biography of Martin, she wrote, "My Samson fell once more into the hands of the Philistines and this time would not rise again."^{9(p55)} Critical opinion of Martin's work has risen and fallen for more than a century and is on the rise once more today.

Henri-Joseph Harpignies (1819-1916)

The late work of artists often reveals marked differences from their earlier creations. When confronted with works from different periods in an artist's career, the viewer may be surprised to discover that the same individual created them. Picasso is a good example of this phenomenon. His early genre scenes were made in a realistic manner typical of late 19th century Spanish art and give no hint of the artist he was to become. They reveal few links to his later Blue and Rose periods or to Cubism. Typically, creative artists experiment with different styles and techniques. When beginning a work, an artist may have little idea what the final result will look like. An artist who is fortunate to live a very long time would be expected to go through several phases. Georgia O'Keeffe, who lived for nearly 100 years, is an excellent example. Her cityscapes, large floral paintings, and scenes of the American southwest show her development over a considerable period of time.

A notable exception is the work of the French artist Henri-Joseph Harpignies (1819-1916), who also lived for nearly a century and worked until the end of his life. He was a prolific artist who created hundreds of landscapes depicting the French countryside during a career that spanned more than 6 decades. Although he traveled widely, he was particularly associated with the Loire River region in central France. Considering how long he was active after having developed his mature style, his work underwent little variation. During the last 4 decades of his life, he bucked the contemporary trends of Impressionism, post-Impressionism, Fauvism, and Cubism, which influenced nearly every other artist active at the time, and stayed within his own personal style.

Vincent van Gogh admired Harpignies and mentioned him several times in letters to his brother Theo. In letter 394 he describes Harpignies as "absolutely and irresistibly carried away by landscape itself."¹⁴ Vincent said Harpignies was an accomplished painter who touched the public, as did other landscape artists, such as Daubigny and Ruysdael, and also that his "work satisfies us fully" because he was "satisfied with sky and earth and a pool of water and a shrub."¹⁴

Some commentators have suggested that there may be a hint of influence from the Impressionists in the overall brightness of the colors he used late in his career, but the characteristic features of Impressionism are not found in Harpignies' work. He did not use the loose brushstroke typical of Impressionism, nor did he break up light into its spectral elements. His paintings create an ethereal mood quite different from Impressionistic paintings. Instead of emphasizing light or exploring light from a scientific aspect, as Monet did, Harpignies subdued it, making it secondary to the overall effect.

Sometimes he would paint looking into the sun, rather than have it coming from over a shoulder. Using this approach, Harpignies made crisp distinctions between dark and light. He simplified his compositions by eliminating fine details. Harpignies often used trees to frame in the scene. Unlike many of the Impressionists, he rarely painted urban scenes. Human figures are unusual in his paintings. His paint is laid down in dabs, which eliminates some detail, but it is not applied in the very fractured manner typical of a Monet. In Harpignies' opinion the Impressionists lacked discipline and their creations were poorly composed and indistinctly painted.¹⁵ Trained in traditional methods of painting, he believed that drawing was more important than color. Though Harpignies was older than all the Impressionists, he outlived most of them. One obituary for Harpignies says he was as solid as the trees he painted: "Wholly absorbed in his life's work until the very end, no more noble or more inspiring example of steadfastness in art and a love of Nature can be found than that of the landscape painter who, among his fellow artists in France, came to be familiarly known as the 'Old Oak.'"¹⁶ Actually, Harpignies became a full-time artist somewhat late in his career, when he was nearly 30 years old. He had been a businessman who loved to travel and did not receive his first medal for a painting until age 47.

He led a more adventurous, even racy life than this obituary implies. He loved fine cuisine, drank two absinthes daily until the end of his life, and had a penchant for beautiful women. When the artist John Lewis Brown came to visit him at his studio, the not-so-young Harpignies led him to the bedroom, where a "supreme creature" was lying on her stomach, stretched out on the bed. "Look at this, he said, uncovering a sumptuous pair of buttocks, don't you think it is tempting for an artist? And I have to be a landscapist."¹⁷ On another occasion, after dinner at a fine restaurant, the elderly Harpignies said to one of his friends: "Come on, let's go, I am going to introduce my girlfriend to you." Harpignies was a nonagenarian whose eyesight was almost his only limitation. It was 1 o'clock in the morning and the two walked for half an hour. The snow on the ground did not bother the elderly artist. He asked his friend for some assistance, saying that he and his girlfriend had a prearranged signal. Is the curtain on the third window from the left, on the

sixth level of that building, open or drawn closed? Closed, was the reply. Emitting an expletive, Harpignies knocked the snow off his cane, saying they could not go up, since her “old man” was there.

His manner of painting was based on the 19th century Barbizon school of landscape painting and on the style of his friend, the important landscape painter Corot, whom he first met about 1853, the year Harpignies first exhibited one of his paintings at the state-sponsored annual Salon. Corot’s wispy trees, preponderance of silvery green tones, and moody atmosphere were very attractive features to collectors then and now. Harpignies incorporated these features into his own painting. Harpignies’ paintings, like Corot’s, create effects that observers often describe as poetic or mysterious. A traditional artist, Harpignies exhibited regularly at the Salon and received many medals. Some of the Impressionists refused any awards and would not send works to the Salon, feeling that the jury was dominated by older artists who were opposed to their way of work and would reject their submissions. In general, these two groups of artists did not get along well. The fact that Harpignies was in demand by collectors may have led to a sense of jealousy by the younger group.

An intriguing incident occurred in 1888, when Harpignies and some of his students were staying at a hotel at Antibes on the Riviera. Monet happened to be registered at the same hotel. From a distance Harpignies and his students watched as Monet painted. Monet, who was struggling with the effect of the intense sunlight on his eyes, was obsessed, tormented, and exhausted by the scene he was trying to depict. Harpignies and his pupils were amazed that Monet could work on a series of canvases at the same time. They had enough difficulty doing just one painting. Monet wanted to be left alone and did not even want his friend Renoir to know where he was, even though Renoir was nearby visiting Cezanne.^{18,19} Monet completed 36 canvases while at Antibes.

Cremieu (1847) (Figure 3), an early work by Harpignies, depicts a brightly lit, well-detailed landscape in a broad range of colors. *Mediterranean Coast* (1900) (Figure 4) was painted more than half a century later, when the artist was 81 years old. It is a view of the Côte d’Azur, probably near the fashionable town of Beaulieu, where he often spent the winter. Even at this advanced age he would paint for 2 or 3 hours every day. This painting was made during the time Harpignies was aware that his vision was becoming blurry. He could not depict details as carefully as he could earlier, and the work was becoming more decorative, a less faithful representation of the scene. The trees and ground form a denser clump than in his earlier, more subtle works, and the lighting of the sky is stronger, perhaps to compensate for his failing vision.



FIGURE 3

Henri Harpignies. *Cremieu*. Oil on canvas, 1847. 38×46 cm. Fitzwilliam Museum, University of Cambridge, UK. Photo: Art Resource, New York.



FIGURE 4

Henri Harpignies. *Mediterranean Coast*. Oil on canvas, 1900. 181.6×65.4 cm. Toledo Museum of Art, Toledo, Ohio. Gift of Arthur J. Secor.

By the age of 80 some amount of cataract formation is universal, so Harpignies must have had some opacification of his lenses. He never underwent cataract surgery. This surgery was certainly available at the time, and Harpignies' fellow artists Daumier, Cassatt, and Monet all underwent it. Harpignies was well informed and a doctor was one of his friends, so it is likely that he was not advised to have surgery. Nuclear sclerotic cataracts are common in the elderly and alter color vision. They act as yellow filters and reduce transmission of the shorter wavelength colors—the violets, blues, and greens—to the retina. Harpignies' late paintings reveal changes in color when compared to his earlier works, an overall reduction in these same colors. His lens opacities must have been less severe than those of Claude Monet, who suffered severe vision loss prior to undergoing surgery in 1923. The works Monet made just before he had cataract surgery show marked changes in colors. Blues and violets dropped out, and reds, browns, and yellow tones came to predominate. Not long after completing the painting which is now in Toledo, Ohio, Harpignies found oil painting on the large format of a canvas too difficult. He then turned to the smaller-scale work of etching and watercolors and continued to produce work that was in demand by collectors nearly to the end of his career. At the end of his life, after living for nearly a century, he lost his central vision, probably from macular degeneration.^{6(p147)}

GLAUCOMA

Jules Chéret (1836-1932): Angle-Closure Glaucoma

Before the poster became an art form, it was just advertising. It was the most effective method of reaching a large urban audience during the 19th century. The poster was a publicity notice and typically described a product or announced an upcoming theatrical performance. It was intended to be disposable. Ironically, although these works were not intended to have lasting value, they are now highly sought after. Some posters have been preserved in fairly large quantities and may be found at relatively low cost in good condition, while others are rare and pricey.

As a large piece of paper glued to a brick wall, an advertising poster was not expected to last long. Rain would quickly destroy it,

and soon another would be put up. In France, a law of 1881 allowed posters to be placed anywhere except on churches, voting places, and areas reserved for governmental notices. This law stipulated that official notices were to be printed on white paper, while all other publicly displayed documents were to be printed on tinted paper. Posters were taxed, and after the tax was paid, they were stamped to indicate they complied with the law. Despite signs on buildings that prohibited posters, poster hangers stuck them everywhere. Major cities, especially Paris, were full of these ephemeral items.

Early posters were printed with black ink alone. Colors were added later, either tinted by hand or printed with just one shade in addition to black. The problem of aligning the black and colored inks was solved without much difficulty; cost was the more important question. Lithography, a process of printing from a stone surface, was invented at the end of the 18th century and was still an expensive method of printing when Jules Chéret began making posters nearly a century later. Most posters were printed from metal plates or wood blocks, which were less expensive. After the first few impressions were made, later images were not as crisp, since the metal or wooden surfaces wore down. Lithographic stones could last longer and offered unique effects of color and texture. Chéret was the “father” of the color lithographic poster. He was very successful with this type of commercial art, which converted the streets of Paris into a veritable poster gallery.

Chéret made several contributions to poster art. He made beautiful women the focus of his images and often positioned them at unusual angles, drawing attention to the composition. There is no mistaking his attractive women, who have been nicknamed “Cherettes”²⁰ (Figure 5). This is a play on words, modifying his last name into a French word which may be translated to mean *dear little girls*. Actually, his main model was not French at all, but a redheaded Danish actress named Charlotte Wiehe.



FIGURE 5

Jules Chéret. *Folies-Bergère. Emilienne d'Alençon*. Lithograph on paper, 1897. 21×31 cm.

Even if the products they promoted are not very remarkable—a gas lamp, a cough drop, or a bottle of wine—the images are hard to ignore or forget. The skillfully portrayed, sensuous women are vivacious and often seem to float in an unreal space. The background of these posters was left vague intentionally, in order to avoid diverting attention from the important aspects of the poster: the women and the product. As a result, the figures and the product are rarely placed in context, and this contributes to the fantasy-world atmosphere.

Chéret's posters are at least as enticing today as when they were when created, and they were some of the most popular art of their time. Chéret had no dealer to represent him and needed none. Edgar Degas, the witty Impressionist, admired Chéret, whom he called "the Watteau of the streets."²¹ He was comparing Chéret to the 18th century Rococo artist who painted charming, idealized, romantic, costumed women. Henri de Toulouse-Lautrec was also a great admirer; his own poster designs reveal Chéret's influence. They occasionally designed posters with the same theme, for example, the Moulin Rouge night club, the dancer Loie Fuller, and the actress Yvette Guilbert. Chéret's figures are ethereal, while Lautrec's are more satiric and worldly.

In describing his approach, Chéret liked to say he wanted to make his works as bright and joyful as a bouquet of flowers. Chéret was one of the first 19th century artists to utilize color in this way. He expanded the range of color used in posters. Instead of the usual one or two lithographic stones used for printing, he often employed three or more to create delicate layers of color. In his early posters he used black ink for the first impression, to outline the figures and provide the lettering. Later he often replaced the black with dark blue. A second inking would be made to add a color. Then a third, fourth, or even fifth stone would be used for additional tones. The usual order was black, red, yellow, and blue. One of Chéret's technical innovations was to use two colors at the same time: blue might be applied to the upper part of the stone and yellow or orange to the bottom of the same stone. His combination of brilliant, vibrant colors is dazzling. In his later posters he would speckle the ink on the stone, creating even livelier interactions of colors. He even kept a collection of butterflies and shells in his studio to use as references for nature's colors.

Chéret was the pioneer in this genre, creating a huge volume of posters, more than a thousand during a very long career. He lived nearly a century and was active artistically for most of those years. He designed his first poster in his early 20s, a promotional piece for Offenbach's operetta *Orphée aux Enfers* (*Orpheus in the Underworld*). Because the market for his work was somewhat limited in Paris, he traveled to London, where advertising was more prevalent and opportunities were greater. He learned lithography technique there and brought it back to France. In 1890 he became the first artist to have a one-man poster exhibition. The French government distinguished him by giving him high rank in its Legion of Honor. It also gave him the unusual tribute of an exhibition of his work in the Louvre while he was still alive.

Although best known for his posters, Chéret did not limit himself to this medium. In fact, he turned exclusively to painting after 1900. He showed his work at the officially sanctioned Salon, painted portraits, sculpted, and decorated the walls of the city hall in Paris, the Hotel de Ville. The critic Joris Huysmans liked to say that Chéret showed a thousand times more talent in his smallest poster than most painters exhibited in their paintings at the Salon. (Never dull, Huysmans enjoyed being provocative. He also liked to imply in jest that Cézanne's originality was due to retinal disease, presumably from his diabetes.)

Sadly, Chéret's career came to an end because of eye disease. He was afflicted with bilateral angle-closure glaucoma in 1923. The treatment he received was ineffective, and he lost nearly all his vision. Claude Monet, one of his friends, was sorry to learn of Chéret's ocular difficulties. Monet was well aware of the possible effects of eye disease on an artist's creative ability, since he had undergone cataract surgery in January 1923. The following year Monet discussed Chéret's problem with another artist, Maurice Denis, who also had ocular problems, but neither could do more than offer solace. A witness described the conversation: "How moving was that meeting of two artists, struck with the same infirmity, the same apprehensions, the same sufferings! Loss of vision, what a calamity for a painter! What a death anticipated! Monet and Denis pitied Chéret, stricken with blindness: 'What is he doing to live?' asked Monet. 'If it were me, I could not live.'"²² In fact, Chéret seems to have adapted to his misfortune rather well, for when the author of an important monograph devoted to the artist met him in 1928, he reported that the 92-year-old Chéret carried himself "with dignity and serenity."²³

Chéret moved from cold, overcast northern France to Nice on the Riviera. The Museum of Fine Arts in that city was renamed the Jules Chéret Museum in his honor in 1930, while he was still alive. This museum owns one of Chéret's last works, a pastel on linen entitled *The Doves*, dated 1921. The catalogue of paintings at this museum states: "The chromatic powdering of this work, a powdering which is occasionally a sort of loose pointillism, is a witness to the first manifestations of the blindness which struck the artist at the end of his life."²⁴ It is difficult to read an effect from eye disease into this late pastel. Pastels do not allow the precision that can be achieved with media such as oil paint or tempera. In addition, by 1920, painting in minute detail was not fashionable. Even photographers were purposefully creating misty images. I have corresponded with the author of the Chéret catalogue, who has also been conservator of the museum. He noted that Chéret was totally blind when he died in 1932, but there is very little biographic documentation about his blindness, and the museum has no archives concerning his last years (personal communications, March 6 and May 6, 1997).

Philippe Lanthony, MD, an ophthalmologist at the Centre Hospitalier National d'Ophthalmologie des Quinze-Vingts in Paris, has studied Chéret's eyesight and career.^{6(p100)} He has written me that this research has not been easy, but he has found several pertinent items (personal communication, August 28, 2006). Every journal article that he found described Chéret's art, but none mentioned his health. In searching newspapers at the Bibliotheque Nationale in Paris, Lanthony discovered this interesting comment in *Le Figaro*, January 8, 1926: "The illustrious artist, menaced by blindness, suffered for three years from glaucoma. The first attacks cost him terrible suffering, but the pains have diminished for several months. . . He is still able to distinguish the azaleas in his garden and experiences sunsets over the bay. . . However, Chéret says, undoubtedly, in six months it will be total darkness." Lanthony also found

a description of Chéret in Nice from 1927: “The master had been blind for several years . . . His custom was to place his hands on the shoulders of his sister-in-law and walk behind her. He appeared to me like a patriarch with imposing stature. . . Chéret told me ‘I love Brittany very much and lived there for several beautiful seasons, but since becoming blind I can no longer enjoy it, and have decided to retire to the Cote d’Azur. Although I no longer see light, the climate is agreeable.’ ”²⁵ Had Chéret lived at the end of the 20th century, he would have been far less likely to have become blind from angle-closure glaucoma, for surgery would probably have saved his sight.

Francois-Auguste Ravier (1814-1895): Neovascular Glaucoma and Cataract

The late 19th-century French artist Auguste Ravier created many charming romantic landscape paintings. Until recently little attention has been paid to his work, probably because he spent nearly all of his career outside of Paris and was therefore considered to be a provincial whose work was less important than that of those who worked in the capital. However, Ravier was well aware of artistic trends in Paris and in France’s third largest city, Lyon, which was not far from where he lived.

Museums throughout France as well as major museums in the United States and the United Kingdom own works by Ravier; the Louvre alone has 20 of his drawings and paintings. Ravier was a friend of several important artists, most notably Corot, who painted his portrait. Ravier’s medical history is significant, since it had an effect on his work. He lost one eye to neovascular glaucoma, and that eye was removed by a famous French ophthalmologist, Henri Dor. The remaining eye developed a cataract, which eventually diminished his sight to the point that he stopped painting; however, he never underwent surgery to solve that problem. The effect of the cataract, but not the glaucoma, is apparent when his paintings are examined chronologically. His late works reveal changes consistent with advancing lens opacities: progressively yellow-brown colors and reduced depiction of details.

Ravier’s life spanned most of the 19th century. He was born in Lyon in 1814, just a year before Napoleon’s debacle at Waterloo, and he died in 1895, on the verge of the 20th century. At age 18 he went to Paris to study law. He intended to follow the family tradition by becoming a notary and working with contracts, property, estate law, and probate. In his free time Ravier drew and painted. While in the French capital, he came to enjoy art more than the law. He did not attend the official French art school, the *École des Beaux-Arts*, where history painting and figure studies were emphasized. Landscape painting is what interested him. He obtained advice from several respected artists but never followed the traditional path of extended study at an art school. Undoubtedly, he visited the studios of several artists who taught at the *École des Beaux-Arts*.

Ravier disappointed his family when he decided to give up the law in favor of painting, but they supported him. Later, when he became the sole heir to the family fortune, he could live comfortably on the income received from leasing farmland, and he could hunt and paint at his leisure. He did not exhibit his work as frequently as did many of his colleagues, but he was represented by dealers and exhibited at the salons, the chief method of showing one’s art to the public in the 19th century. During the 1880s he exhibited with the Paris dealer Boussod and Valadon, where Vincent van Gogh’s brother Theo was in charge of his paintings. Ravier’s loose technique, which included rubbing and scraping the painted surface, may have influenced Vincent as he developed his own unique style of painting.

At age 25 Ravier met the well-known landscape painter Jean-Baptiste-Camille Corot (1796-1875), the most important member of the Barbizon group, who became his mentor. Corot taught Ravier to study the effect of light while painting out-of-doors and encouraged him to make a pilgrimage to Italy to improve his artistic skill. Ravier made several lengthy trips to Italy, painting and drawing in the countryside near Rome. Then he returned to the area where he had grown up, the French countryside near Lyon. He particularly enjoyed exploring the effect of light at daybreak and near sunset. He would draw in the morning and paint in the late afternoon. His works are nearly all on a small scale, typically about 11 by 14 inches. His choice of materials was unusual. When working directly from nature, he preferred to use oil paint on paper or canvas as preparatory studies for more finished work done later in his studio in watercolor. This was opposite the usual technique. Homer Dodge Martin, for example, carried a sketchbook in his pocket, in order to record impressions of a scene quickly in watercolor, and would use the watercolors in creating oils in his studio later. Ravier was one of the first painters who was also a photographer. Beginning about a decade after photography was invented in 1839, Ravier experimented with this new medium as a means of recording variations in the effects of light.

Ravier’s paintings depict ponds, fields, trees, and towns near his home. They are personal visions, full of atmosphere, and give a sense of nostalgia to many viewers. The colors are often dramatic and enhanced beyond the expected and natural. His work shows affinities to two groups of his contemporaries: the Barbizon landscape painters, who were active from about 1830 to 1870, and the Impressionists, who exhibited together in the 1870s and 1880s.

As with the Barbizon painters, Ravier’s works feature rural French landscape. With the Impressionists, he shares broken brushstrokes, flattened space, and reduced modeling of forms. Similar to Monet, the epitome of Impressionism, Ravier was very interested in capturing the continuously varying and elusive effects of sunlight. However, Ravier was a solitary figure whose work does not align completely with any particular group of artists. His color choices tended toward the earth tones more typical of the Barbizon school rather than the bright colors of the Impressionists. Ravier was a romantic and a provincial, while the Impressionists were more urban and cosmopolitan. The watercolors Ravier created at home in his studio create a romantic feeling, a mood that is quite different from Impressionism. In this sense Ravier is closer to van Gogh, who sought to convey emotion through his painting. Ravier’s expressive use of unexpected colors and loose way of painting mark him as a precursor of the Fauve group of artists, which included Matisse.

Ravier enjoyed good health until age 65. While painting outdoors on a beautiful October day in 1879, he lost consciousness suddenly, fell, and struck his head. His letters and his biographers provide information about this event and its aftermath. Ravier wrote that following the accident he suffered from vertigo, but he had no headaches and his pulse remained steady. He did not describe any

motor or sensory loss or any visual difficulty. His physician diagnosed a stroke (*coup de sang*) and told him that he suffered from overexcitement of the brain (*surexcitation du cerveau*).^{26(pp139-140)} His treatment included “prudent” activity, which meant reduced physical exertion in order to prevent another stroke. He was advised to avoid extremes of temperature, so he cut back on his preferred hours of painting outdoors in the early morning and late afternoon. Other nonspecific measures were prescribed, including footbaths. Although he was a smoker, Ravier did not record being told to reduce his use of tobacco. Arsenic was also part of his treatment. Although this heavy metal was known to be poisonous, it had been used therapeutically for thousands of years. Today there is evidence that arsenic damages blood vessels and can lead to stroke.

In 1884, 69-year-old Ravier suddenly developed pain and loss of vision in his left eye. In a letter written 3 weeks after this problem began, he described it as an ophthalmia, a nonspecific term that could encompass nearly any serious eye disease. His choice of words indicates that he retained a sense of humor despite the fear he must have been experiencing: “Since the beginning of the month I have been seized by an ophthalmia which has forced me to interrupt all work, all reading, and lead the life of a frog at the bottom of a well. . . . At this moment I am doing better, but I am not yet out of pain. I do not know what will happen.”^{26(pp172-173)} Two months later he wrote, “I have definitely lost one eye and all my efforts must amount to saving the other.”^{26(p173)} In another letter Ravier wrote, “Since we last saw each other, a severe misfortune has occurred to me. Due to the insufficient care that I have taken for my eyes, I have long been fatigued. I was hit January 6 with hemorrhagic glaucoma (that is what the ophthalmologists called it). It made me lose an eye, which, the doctors advised me to have removed in order to prevent infection in the other one.”^{26 (p174)} After having spent more than three months unable to do anything, the 24th of last month [April, 1884] Dor performed the operation, which succeeded perfectly.”

Ravier’s wife described the events in another letter: “Do not be disturbed. The operation is over and was done quickly and painlessly. After it was finished, Dor said to my husband, ‘It is over,’ and he responded ‘That is all there is?’ And, by the way, I assisted at the operation, and was surprised how little time it took and to see that my husband, who was not asleep, was not held down any longer and did not move. The doctor is very pleased with the operation. He told me that the timing was appropriate and that he had an early cataract, which would get worse. We are staying at Dr. Dor’s place for another eight or ten days.”^{26(p152)} How Ravier was anesthetized for the surgery is not clear. Perhaps his wife’s remarks meant he had been given ether or chloroform at the beginning of the operation and that it had worn off by the end, when he was awake. The operation took place just a few months before a tremendous achievement in ophthalmology was made public. Carl Koller, of Vienna and later New York, notified the world that cocaine can provide effective topical anesthesia in the eye. Prior to the discovery of cocaine’s potential, the only anesthetics available were a few inhalation agents, ice, ethanol, cannabis, and opiates.

Ravier’s surgeon, Henri Dor (1835-1912), was one of the most important ophthalmologists in Europe during the second half of the 19th century.²⁷ After receiving his medical degree from the University of Zurich, he followed the custom of that era by making a grand ophthalmological tour of Europe. He studied with the most eminent ophthalmologists of that time: Jaeger in Vienna, von Graefe in Berlin, Sichel and Desmarres in Paris, Bowman and Critchett in London, Mackenzie in Edinburgh, and Donders in Utrecht. As is typical of many Swiss, Dor was multilingual, but he went beyond that skill level, becoming a great linguist and learned nine modern and five ancient languages. He liked to say that “the greatest bar, not only to scientific progress, but also to the brotherhood of man, was the existence of hundreds, even thousands, of different tongues, constructed in accordance with every conceivable rule of unreason and folly.”²⁷

He moved to Berne, Switzerland, where he became professor and chair of ophthalmology at the university and later dean of the medical school and the university’s rector. He became frustrated, however, with what he considered to be insufficient provision of resources by the government. Seeing no hope for improvement, he resigned from the university in 1876 and left the country. He moved to Lyon, France, where he established a large practice. He hoped to be named the professor of ophthalmology at the medical school there, but the position was given instead to a native Frenchman, Charles Gayet.

Dor maintained his academic interests. In 1882 he and Edouard Meyer founded an excellent journal, the *Revue Generale d’Ophthalmologie*, and Dor was one of its editors until his death 30 years later. He published hundreds of scientific papers, including subjects relevant to the care of Ravier—glaucoma, enucleation, and cataract. He was a founding member of the French Ophthalmological Society, the Heidelberg Congress, and the Oxford Ophthalmological Congress. The French government honored Dor by making him a Chevalier of the Legion d’Honneur. His library was acquired by the book dealer J. P. Wayenborgh in the 1970s; in 1986 it was integrated into the Norton Library of the Bascom Palmer Eye Institute in Miami, Florida.

The ophthalmic historian Thomas Shastid extolled Dor’s virtues, writing, “Dor was indeed a brother to every human being. He was always cheerful, genial, jovial, kindly, courteous, and above all things, practically helpful. . . . He was also a man of singular purity of character. ‘Dor,’ in French, means ‘of gold,’ and, for this reason, the great ophthalmologist was appropriately named; for he had a heart of gold that was gold and gold only, from center to circumference, without one taint of dross.”²⁸

Within a few weeks of his surgery, Ravier resumed painting: “I am beginning again to scrape and sponge paper,” he wrote, and “I have been able to resume work again, with some prudence.”^{26(p117)} His physician had advised caution, presumably to avoid stress, which might lead to another stroke. It is unlikely that painting would be exhausting, but Ravier’s other favorite recreation, hunting, certainly could be dangerous for a one-eyed man carrying a rifle through the woods. He wrote, “I am going to Lyon to have a glass eye made, and now I am nearly presentable.”^{26(p152)} At times he could be self-mocking, referring to himself as a one-eyed Cyclops. His friends quickly found this terminology painful. One said, “For the sake of the Lord, do not sign your name Cyclops any longer! That expression breaks my heart when I think of the sadness that has happened to you.”^{29(p33)}

Ravier was fitted with a prosthetic eye, which improved his appearance.^{26(p152)} Shortly after the surgery, he wrote, “I see a little less

distinctly, but clearly.^{26(p174)} He gave an optimistic appearance to his outlook, as this quotation from a letter written a few months after the enucleation indicates: “For me, I am entirely pleased to be able to look at the clouds; after the fright that I underwent, I find that is enough for happiness in life.”^{26(p175)} He presented himself as vigorous and still capable of painting out-of-doors, directly from nature. However, he was depressed and could work only for brief periods of time. He would blame his inability to work on the weather: “The least little thing gives me a cold and the cold and humidity are very contrary to my eyes. What with the fog and the humidity and the cold possible on the plain, I would be obliged to come back running, having made a useless trip.”^{26(p157)} In another letter, Ravier wrote that he “had not lost the gift of color and enthusiasm. I see, truly, a little less clearly, but sufficiently, and Dor told me that it will improve. . . two months ago, I was afraid that I would never be able to work again, and in that thought, a little like a man at the end of his rope, I thought of putting all my affairs in order.”^{26(p155)} In the spring of 1885, about a year after the surgery, he stated: “I am not doing badly, but am always on alert.” When his remaining eye became inflamed, he consulted Dr Dor again. Dor diagnosed conjunctivitis and treated him with copper sulfate.^{30(p33)} Fortunately, the therapy appeared to be effective.

At age 70, within a year of the surgery, Ravier would occasionally put in a half day’s work. In February 1885, he wrote: “I am still working a little but less, a half day per 24 hours.”^{29(p117)} His sight worsened over the next few years. In his words, “fog has returned to my vision.”^{25(p33)} In 1890 he wrote, “I cannot read or draw and I think the cataract has gotten worse.”^{30(p34)}

During the first few years after his surgery, Ravier exhibited watercolors at several important venues: the Salons of Paris, Lyon, Geneva, and Grenoble. The art critics gave him favorable reviews, but he did not fare as well with his dealer, Boussod and Valadon in Paris. Theo van Gogh handled his work there, but he never sold any of Ravier’s works. Discouraged, Ravier wrote, “The experiment is done. I’m turning my back on fashion.”^{29(p105)} Nevertheless, his creative ability was recognized. Ravier was awarded the grand prize at the Universal Exposition of Lyon held in 1894. About the same time, several of his friends wrote letters in support of his nomination for the Legion of Honor. Ravier said that he would be pleased to receive this award, but he did not campaign on his own behalf, and never received that honor.

Ravier’s works made after losing an eye provide less sensation of space than do his earlier works. The reasons for this are stylistic, not physical. He could still use monocular clues to depict space, such as overlapping forms, reducing the relative size of objects as they recede into space, linear perspective, fogging distant objects (atmospheric perspective), and color differences (warm colors for near objects and cooler ones for distant ones). At that time many avant-garde artists were moving away from traditional depiction of space, and Ravier incorporated this new trend into his work. He experimented with different techniques. When working with watercolors, he would scrape the paper to create highlights and sponge it with water to tone down color. The brush strokes became more splotchy, looser, and broader. He experimented with the paint and allowed it to puddle, so that chance effects, rather than control, determined more of the composition.

His handwriting worsened along with his vision, and others, usually his wife, took care of the correspondence. He stopped painting in 1889 or 1890, but lived until 1895. Two years before the end, Ravier wrote, “I can only dream of touching a brush or pencil, and it [is] likely that it will always be so.” Dor found that he had a cataract in 1884, and Ravier suspected it was worsening a few years later.

Although Ravier never described changes in his color vision as he aged,^{29(p105)} his paintings show differences in the colors he used as he became older. *Vue d’une villa romaine* (about 1841) (Figure 6) is an early work by Ravier, made with brilliant colors. *Cremieu* (about 1867-1872) (Figure 7), painted more than 25 years later, shows an overall increase in yellow and brown tones. The setting of the later work, Cremieu, is a small French town where Harpignies also painted (Figure 3). Nuclear sclerotic cataracts are a well-known cause of this acquired change in color vision. Individuals who have had cataracts removed often note changes in their color perception following removal of this yellow-brown filter. Claude Monet is undoubtedly the best known artistic example of this phenomenon. He underwent surgery to one eye in 1923, and his canvases show marked color changes leading up to surgery. Following surgery he returned to the older works and retouched many of them.

Less than a year before his death, Ravier summed up his career appropriately. He wrote that he had “brought to light an original way of seeing from which many have profited and will profit.”^{29(p108)}

Louis Valtat (1869-1952): Glaucoma With an Unfortunate Ending

The French painter Louis Valtat deserves to be better known than he is. There have been many exhibitions of his work and he has been the subject of several monographs, but he remains virtually unknown to much of the public, even to connoisseurs. This is due in part to the fact that his dealer, Ambroise Vollard (circa 1867- 1939), represented many very important artists, including Cézanne, Degas, Gauguin, van Gogh, Matisse, Picasso, and Renoir, and provided some of them more exposure than others. (In 2006-2007 Vollard himself was the subject of a major exhibition at the Metropolitan Museum of Art, New York, the Art Institute of Chicago, and the Musée d’Orsay, Paris, entitled *Cézanne to Picasso: Ambroise Vollard, Patron of the Avant-Garde*.) Vollard bought paintings directly from artists and often purchased the entire contents of their studios. Some of the works he acquired in this way were held in reserve for years and not exhibited until Vollard considered it time to promote them. This method of marketing might avoid flooding the market, but had disadvantages for some of his artists, who could have used a more regular source of income.

Vollard gave less attention to Valtat than he could have. Luckily for Valtat, his family had done very well in the shipbuilding industry. He was independently wealthy and did not need the financial help that most members of Vollard’s stable of artists required.

Valtat studied under some renowned teachers in Paris: Gustave Moreau at the École des Beaux-Arts and Jules Dupre at the Academie Julian. He met other students who were destined to do well: Maurice Denis, Pierre Bonnard, Edouard Vuillard, and Albert André. In 1895 he even collaborated with Henri de Toulouse-Lautrec on a stage design. Valtat first exhibited his paintings at the governmentally sanctioned Salon des Indépendants in 1889. Early in his career he was influenced by the Impressionists, but Valtat soon came under the influence of the two great esthetic trends at the turn of the 20th century. He first worked in a Pointillist style,

using multiple small spots of color. Next, the work of friends in the Nabi (prophets) group of artists transformed Valtat's painting; he altered his method of work, adopting elliptical forms and undulating lines. Not long after this, Valtat developed his personal style. He can be seen as a precursor to the Fauves, an artistic movement that used swatches of unexpectedly bold color, and whose best known practitioner is Matisse. Valtat's brush strokes became broader, and he used wide areas of black paint to outline large spots of brilliant color (Figure 8). His bright and often clashing colors were very different from those seen in the real world and were chosen for their symbolic value. Some artists were working in this direction early in the 20th century, but this certainly was not the usual way of painting at the end of the previous century. Red and green often dominate in Valtat's painting. This differed from the paintings made during the same period by his friend Maurice Denis, a member of the Nabi group who was also using color for symbolic reasons, but Denis tended to use more brown and muted tones. One critic said: "Certainly, Valtat expressed himself with a beautiful lyricism, often associating color and arabesque."³¹



FIGURE 6

Francois-Auguste Ravier. *Vue d'une villa romaine*. Watercolor, about 1841. 21.6×28.5 cm. Musée d'Orsay, Paris.

Valtat divided his time between Paris and the Riviera. Under the powerful sunlight of the Mediterranean coast, with its bright red rocks and glistening blue sea, he painted landscapes with very strong, even clashing tones. He spent time with the Pointillist painter Signac at Saint-Tropez, and they made an unusual trade. Signac gave Valtat an automobile in exchange for a large painting by Valtat of women at the seashore, which Signac hung in a treasured place in his dining room. Valtat was one of the few artists who owned a car at the beginning of the 20th century, and he enjoyed the mobility it gave him.

Valtat met Renoir unexpectedly one day while both were painting on a beach, and Renoir was amazed by the audacity and vigor of Valtat's painting.³² Valtat was a guest many times at Renoir's home at Cagnes, in the south of France, sometimes for extended stays, and they created portraits of each other. Renoir introduced Valtat to his dealer, Vollard, who then became Valtat's dealer as well. In his autobiography, Vollard quotes Renoir as saying, "I was struck by the happy harmony of color through his painting."^{33(p197)} The colors may have appeared harmonious to Renoir, but most observers found them overly bright. Vollard also reported that Renoir was astounded at how totally immersed Valtat was in painting. "His only relaxation is shooting," according to Renoir.^{33(p69)}

Vollard represented Valtat from 1900 to 1913 and gave Valtat his first one-man exhibition, not long after holding one for Matisse. Valtat exhibited at the famous Salon d'Automne in 1905, along with Matisse and Marquet. Reviews of that show include the term *Fauve* (wild beast) for the first time. Fauvism was the first artistic movement of the 20th century, preceding Cubism. The Fauves admired van Gogh, who had died a few years earlier, in 1890, and also used colors arbitrarily for their emotional effects. Valtat's work during the decade that preceded the 1905 Salon reveals his development of features that became standard for the group—drawing in color, using unmixed bright tones and rhythmic arabesque shapes. However, he remained rather independent and was not a true member of the Fauve group. Valtat distorted color and form, but not quite as much as did Matisse. His most common subjects were landscapes, seascapes, and still life compositions.

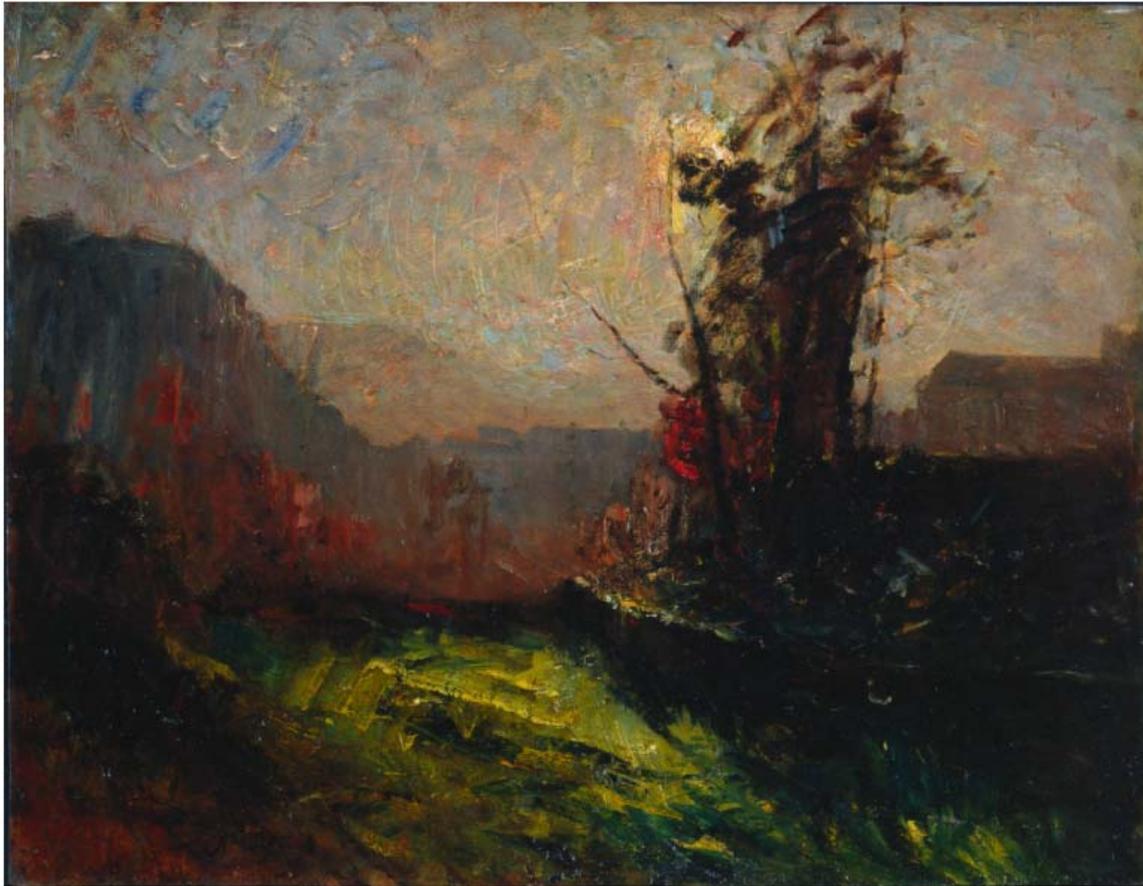


FIGURE 7

Francois-Auguste Ravier. *Crémieu, seen from Chaillonnette*. Oil on wood panel, circa 1867-1872. 27×34.8 cm. The Cleveland Museum of Art, Cleveland, Ohio. Gift of Mme. Felix Thiollier.

In 1952, the year of his death, the Salon d'Automne exhibited an important retrospective of Valtat's work. Critics and historians reevaluated him, recognizing a greatly underappreciated talent.

At age 78, in 1948, Valtat was found to have glaucoma. This disease ended his career. The paintings he made during the last few decades of his life, however, are stylistically consistent, which indicates his eye problems did not affect his work appreciably until glaucoma finally destroyed his central vision. Unfortunately, few details are known about his glaucoma. In an interesting coincidence, other artists whom Valtat knew also suffered from eye disease. As a student, he had worked in the studio of Henri Harpignies, whose ocular problems have already been discussed. One of Valtat's fellow students was Maurice Denis, who suffered central visual loss, probably a maculopathy. Although a large number of 19th and 20th century French artists are known to have suffered from eye disease, there is no known causative interconnection.

Roger Bissière (1888-1964): Glaucoma With a Good Outcome

Roger Bissière was a native of southwestern France and was educated at the Bordeaux School of Fine Arts. As a young man he moved to Paris for further study and came under the influence of Georges Braque, who, along with Picasso, founded Cubism, the style in which the image is fractured and reassembled in abstract form. Bissière exhibited his work regularly at the officially sanctioned Salons and at several private galleries. He became an influential professor of painting at an important school, the Academie Ranson in Paris, but, paradoxically, he liked to say that nothing can be taught.

In 1938 Bissière left Paris and returned home to recuperate from a pulmonary disorder, which was probably tuberculosis, since we know one of his sisters had died of this disease earlier. At home he was closer to nature than he was in Paris, and he developed an interest in landscape painting. By 1939 Bissière realized that his eyesight was deteriorating. When looking straight ahead, he could not see the top of his canvas. Glaucoma was diagnosed, but Bissière put off surgery for a decade. He was deeply troubled by the collapse of the world around him during World War II. His visual problems and his emotions caused him to lose interest in painting. In his words: "I had nothing to say. Events had drained me."³⁴ Fortunately, about a year before the war ended, he regained some of his composure, and he resumed painting and making collages.



FIGURE 8

Louis Valtat. *Woman with Guitar (Portrait of the artist's wife, Suzanne)*. Oil on canvas, 1906. 97.5×130.5 cm. Musée des Beaux-Arts, Rennes, France. Photo: Adélaïde Beaudoin. Photo: Réunion des Musées Nationaux/Art Resource, New York.

Over the next 5 years Bissière's vision gradually worsened, and his outlook again became pessimistic. In February 1949 he wrote to a friend: "My vision is decreasing slowly, but decreasing just the same. Beside this nightmare everything else appears to be of little importance."^{35(p122)} In May 1949 he described "anguish about his declining vision," and early in 1950 he wrote how difficult it was for him to agree to ocular surgery. Visual field testing showed he had lost two-thirds of his peripheral vision. Bissière underwent surgery in June 1950, which controlled his glaucoma and ended his fear of blindness. Two months following surgery he wrote: "My vision has returned to nearly what it was before the operation. No better, no worse, with the difference that I am more irritated while painting than before and my eyes tire more quickly."^{35(p124)} His psychologic outlook continued to improve.

Bissière's ophthalmologist was Gabriel Sourdille (1901-1956), an esteemed professor of clinical ophthalmology at the medical school of Nantes.³⁶ The procedure was undoubtedly iridencleisis, since Sourdille was a strong advocate of that type of filtering surgery. The year that he operated on Bissière, Sourdille presented his series of more than 1100 cases of fistulizing operations to the International Congress of Ophthalmology. He also published in 1950 his experience with iridencleisis, stating that in his hands the results were better than with any other procedure for chronic glaucoma.³⁷ Under a limbal-based conjunctival flap, Sourdille made an incision through the sclera followed by an iridectomy that extended from the base of the iris through the pupillary border. To encourage filtration of aqueous, he would incarcerate the pillars of the iris in the incision.

Bissière changed his manner of painting after surgery, but this was not due to his eyesight. During the period between the wars, he, like many other artists, had come under the spell of Cubism. By the middle of the 20th century, he turned toward nonrepresentational art. Bissière's abstract works feature bright colors and short curved lines (Figure 9). Already well known, he became even more famous in 1952, when the French government made him the first painter to be awarded the Grand Prix National des Arts. Surgery for glaucoma had prolonged his career, unlike the cases of his predecessors Chéret and Valtat.



FIGURE 9

Roger Bissière. *Spring is Coming Tonight*. Oil on canvas, 1961. 73×60 cm. Musée des Beaux-Arts, Rouen, France. Photo: Giraudon/Art Resource, New York.

RETINAL DISEASE: THE CASE OF GEORGE DU MAURIER (1834-1896)

Although the late Victorian artist and author George Du Maurier is not well known today, he was very famous during his lifetime. Du Maurier was an illustrator for *Punch* magazine, where he specialized in cartoons as social commentary. After working more than 30 years for *Punch*, he wrote a novel, *Trilby* (1894), that was probably the best-selling work of fiction in both the United States and Britain at the end of 19th century and is still in print.³⁸ One character in this novel, Svengali, is remembered for his ability to exert tremendous mind control over others. Svengali ranks with two other memorable figures from late Victorian fiction for lasting fame: Dracula, the creation of Bram Stoker (1847-1912), and Sherlock Holmes, the detective created by the ophthalmologist-turned-author, Sir Arthur Conan Doyle (1859-1930).

Literary and artistic taste can be fickle, and today Du Maurier's style of writing, which was conversational and melodramatic, has gone out of fashion. His fame a century ago has even been eclipsed by that of his descendants. His son Gerald was a well-known theater manager and the first actor to play the roles of Mr Darling and Captain Hook in *Peter Pan* (1904). Dame Daphne Du Maurier (Lady Browning, 1907-1989), Gerald's daughter, is even better known than her father or grandfather. She wrote the romance novel *Rebecca*, which Alfred Hitchcock made into a classic suspense film in 1940. Although Du Maurier's novel *Trilby* is nearly forgotten today, it struck a chord with his audience and was adapted for many movies and stage plays. It inspired others to write similar stories, the best known of which is *The Phantom of the Opera*. Sixteen years after *Trilby* was published, Gaston Leroux (1868-1927) took Du Maurier's theme of a man who has hypnotic power over a beautiful young singer and transformed it into *The Phantom*.

The huge reception that *Trilby* received overwhelmed Du Maurier. He was already known for his illustrations in novels by Thomas Hardy, William James, Wilkie Collins, and W. M. Thackeray and in magazines such as *Punch* and *Harper's*. He had written another popular novel, but *Trilby* resonated with the public. It gave him celebrity status and made him far more visible than he would have liked.

Shortly after *Trilby* was published, a journalist interviewed Du Maurier and found him “a man who has suffered greatly, haunted by some evil dream or disturbing apprehension.”^{39(p392)} Du Maurier told his life story, in which his blind left eye formed a major part of the tale. He had suddenly lost the vision in his left eye at age 23, and he lived in constant fear of losing the sight in his remaining eye.

Interestingly, two of Du Maurier’s friends and fellow illustrators lost eyes from injuries at a young age. His colleague at *Punch* magazine, Sir John Tenniel (1820-1914), was struck in one eye while fencing with his father. Having the “stiff upper lip” of a Victorian Englishman, Tenniel never told his father that he had blinded him. Despite this terrible accident, Tenniel was able to create the famous illustrations for Lewis Carroll’s *Alice in Wonderland* and its sequel, *Through the Looking Glass*, that are strongly associated with Alice. When Du Maurier became depressed about his eyesight, an editor at *Punch* tried to lighten his mood by saying he and Tenniel were doing well and between them had more than enough vision for the magazine’s needs.⁴⁰

Du Maurier’s other colleague with only one eye was Arthur Boyd Houghton (1836-1875). In a bit of horseplay that got out of hand, another child shot him in the face with a toy cannon. For the rest of his life Houghton wore a patch over the injured area. The remaining eye caused him difficulty, but we have little information available today to know if the problem was sympathetic ophthalmia. The large number of detailed oil paintings and engravings Houghton made later in life speak against this diagnosis. He was a medical student in London for 2 years but did not enjoy it and transferred to the Royal Academy Schools of Art. He became a popular illustrator and worked for many magazines. Shortly after the Civil War, the *Graphic* commissioned him to be the first English artist to make a grand pictorial tour of the United States. Like Du Maurier, Houghton enjoyed the bohemian lifestyle, perhaps too much, for he died of cirrhosis while still in his 30s.

The day after Du Maurier was born, his father wrote, “I have already dedicated him to science. May he live up to our expectations.”^{41(p115)} His father was French and his mother was English. He was also the grandson of a Frenchman exiled in England and an Englishwoman exiled in France. The blending of these two nationalities became a part of his personality. Although much of his childhood was spent in France, as an adult he considered himself an Englishman.

Du Maurier was educated in private French schools, but he suffered a setback at age 17, when he failed the graduation examination called the baccalaureate. Failure meant he could not enter college. No one had the courage to tell his father, who was living in England. The elder Du Maurier had invited George to come to London after completing his education in France, thinking he might find his son a job in the sciences. When George’s father learned what had happened, he burst out laughing. Du Maurier later said this response was “the greatest pleasure I ever experienced in all my life.”^{39(p394)} The senior Du Maurier never mentioned his son’s failure again. George enrolled as a student in the Birkbeck Chemical Laboratory of University College, London, and later wrote this vivid description of his time there:

“I am from 9 till 2, in the laboratory, testing all the nastiest substances that were ever inclosed [*sic*] in glass bottles; just fancy me with an old coat, and a stained black apron down to my feet, scarcely visible among the fumes and vapours of all colours and smells; in one hand a sandwich, in the other a bottle of sequifferocyanide of potassium, or protosulfate of iron, or other substances with names no less euphonious. I am full of ardour in the pursuits of my profession; indeed I am quite forgetting the usual terms of common things, and instead of asking for salt, or water, etc., I ask for the chloride of sodium or the protoxide of nitrogen.”^{42(pp24-25)}

In an early autobiographical novel, *Peter Ibbetson*, published in 1891, Du Maurier wrote that the year he spent in the laboratory was less than agreeable. He preferred to wander the streets of London, visit galleries, and copy masterpieces at the British Museum. A fellow student described George as a cheerful, humorous young man “who impressed everybody with his French background and general savoir-faire.” Du Maurier would draw caricatures of his fellow students and would even demonstrate karate by “knocking your cap with one foot, and sending your books flying with the other.”^{42(p26)}

After leaving University College, with parental assistance Du Maurier set up office as an analytical chemist. However, he obtained only two commissions and soon gave up this career. In the autobiographical novel published in 1897, *The Martian*, he mused: “I had a good deal of time on my hands, and read many novels and smoked many pipes, as I sat by my chemical stove and distilled water, and dried chlorate of potash to keep the damp out of my scales, and toasted cheese, and fried sausages, and mulled Burgundy, and brewed nice drinks.”^{43(p152)}

Du Maurier had a good voice and even considered becoming an opera singer, but his family discouraged that idea. His father tried to find something practical for George to do and considered sending him to Paris to learn photography, a field that might earn him a living. His mother was irritated with his lack of progress and wrote to a relative: “He has no initiative, no energy. He sits about and dreams. Always a pencil in his hand—and I think of the money wasted on his education.”^{42(p27)} She also wrote: “It is hard to have a son, one and twenty and no profession. . . he has been consulting his friends about studying painting, as he certainly draws very well and has great taste. They tell him it is hard work to make his way as an artist. I don’t see what else he can do—as to his ever being a man of business, he has no talent for it.”^{42(p30)}

In 1856 George’s father died of cardiopulmonary disease just after losing a lawsuit. Following the funeral, the family left England without even arranging for a gravestone. His mother was anxious to leave the disappointments of their London period behind and return to Paris. Despite his earlier years in France, Du Maurier was essentially an Englishman in Paris. The author Henry James (1843-1916), who was a close friend, noted that the French half of Du Maurier was not very evident. Paris was known for its educational opportunities and the freedom to live a relatively unrestrained, Bohemian lifestyle, and many of its residents were English or American. They saw their time in the city as an opportunity to study and enjoy life before returning to the more socially confining environments of their own countries.

Du Maurier, however, led a less than Bohemian life during the year he spent in Paris living with his mother and sister. He studied

painting in the studio of an academic artist, Charles Gleyre (1808-1874), a popular place that attracted many artists, including Monet, Renoir, Sisley, and Whistler. (Coincidentally, Gleyre also had eye trouble in his youth, a severe case of trachoma caught during a visit to Egypt.) Gleyre worked and taught in a precise manner but did not impose his individual style on his students. After learning all he could from Gleyre, Du Maurier moved to Belgium in 1857 to study at the Antwerp Academy of Fine Art.

A few months after arriving, Du Maurier had an ocular crisis. Without any warning signs or symptoms, at the age of 23, he suddenly lost the vision in his left eye. Even decades later, when he described the event to a reporter, his demeanor changed completely, and he displayed an “expression of mingled terror and anger and sorrow.”^{39(p397)} As Du Maurier related the story: “I was drawing from a model, when suddenly the girl’s head seemed to me to dwindle to the size of a walnut. I clapped my hand over my left eye. Had I been mistaken? I could see as well as ever. But when in its turn I covered my right eye, I learned what had happened. My left eye had failed me; it might be altogether lost. It was so sudden a blow that I was as thunderstruck.”^{39(pp397-398)} Du Maurier also described the event in his novel *The Martian*, noting that the world disappeared when he closed the right eye. He rubbed the eye and washed it out, but nothing would improve his vision. He experienced “what great fear really means, for the first time.”^{43(p194)}

His teacher at the Antwerp Academy recognized that Du Maurier was in a state of shock. Trying to calm him, he told Du Maurier that something similar happened to him once and turned out not to be serious. He may have told Du Maurier that it was an attack of migraine, for Du Maurier had a history of that illness. The teacher advised him to see the professor of ophthalmology at the nearby University of Louvain (Leuven, in Flemish), the man who took care of his own eyes, and was reputedly the best ophthalmologist in Belgium: This was Frederic Hairion (1809-1888).

Hairion’s center of higher education, the University of Louvain, is today, as it was then, a large Catholic institution located in the French-speaking part of Belgium. It is an ancient university that included a medical school at its founding in 1425. Hairion was an important ophthalmologist and a member of the editorial board of the *Annales d’Oculistique*.^{44(p303)} He helped organize the first International Congress of Ophthalmology, held in Brussels in 1857, the same year that Du Maurier first consulted him. Hairion devoted his life to the scourge of ophthalmology during the first half of the 19th century: military ophthalmia—a mixture of trachoma, gonococcal, and viral conjunctivitis.

Hairion dilated Du Maurier’s pupils with atropine and examined him with an ophthalmoscope. Hermann von Helmholtz’s landmark description of his new invention, the ophthalmoscope, was first announced in late 1850 and described in print the following year. Early versions of the instrument were difficult to use. The early sources of light were a candle or an oil lamp, reflected into the eye using a mirror that had a central opening so the physician could see in at essentially the same direction as the incoming rays of light. These light sources provided less intensity than those used today, and they distorted colors. Du Maurier’s lesion may have been subtle and difficult to see. Hairion told Du Maurier that “it was merely a congestion of the retina—for which no cause could be assigned; and that he would be cured in less than a month.”^{43(p195)}

Almost no effective therapies were available at that time to treat retinal disease. Hairion devised a complicated plan. First, a seton was placed in the back of Du Maurier’s neck. A seton is a foreign body, such as a horsehair or pea, that is inserted under the skin through a small incision. The theory behind this was that chronic discharge would follow and would drain away “evil humors.” Seton therapy was no more effective than it had been more than a century earlier, when one was used to treat Dr Samuel (“Dictionary”) Johnson. It did not provide Johnson or Du Maurier anything more than placebo therapy, nor did it improve their eyesight.

Cupping, another form of therapy that seems bizarre today, was Hairion’s second measure. Du Maurier was to apply heated glass cups to his chest and thighs twice a day. As the glass cooled, it would stick to the skin. A mild amount of erythema remained in the skin under the cup, and the theory was that this also released “evil humors.” Sometimes incisions were made through the skin before cupping, to release even more humors. As part 3 of Hairion’s regimen, Du Maurier was to take mercury 3 times a day by mouth. Mercury was used to treat many types of disease, particularly infections such as syphilis, before more specific therapeutic agents became available. Mercury can kill some microorganisms, but it is a toxin and probably further weakened Du Maurier. He was advised to add very rare meat to his diet and go to a coastal resort for hydrotherapy. Hairion recommended the resort town of Ostend on the North Sea, but Du Maurier conceded he was a poor art student and Ostend was awfully pricey. Hairion replied that the more inexpensive resort town of Blankenberghe, 12 miles northeast of Ostend, would do. Hairion’s charge for the office visit was high, but Du Maurier paid willingly for the “top notch” advice. Hairion bade him good-bye with a courtly bow and told him to return in a month if he was not cured.

Not surprisingly, none of these measures improved Du Maurier’s eyesight. He was morbidly afraid of losing the other eye, and he soon obtained a second opinion from the professor of ophthalmology at the University of Ghent, Belgium. (This university is much younger than its rival in Louvain and was founded as a state university in 1817 with no religious affiliation. It is located in the Flemish-speaking part of Belgium.) This ophthalmologist was Jean-Julien van Roosbroeck (1810-1869). Van Roosbroeck’s most important contribution to the field was an influential textbook of ophthalmology, published in 1853, the first book about ophthalmology written by a Belgian.^{44(p288)} It was printed 2 years after von Helmholtz published his book on the ophthalmoscope, but it does not describe the findings made with the new instrument. Perhaps van Roosbroeck had mastered ophthalmoscopy 4 years later, in 1857, when Du Maurier developed his ocular problem.

Van Roosbroeck and Hairion discussed Du Maurier’s case, but we have no record of their collaboration. In one of his autobiographic novels, Du Maurier’s description of van Roosbroeck begins at a point where the narrative is more fiction than fact. Du Maurier says van Roosbroeck told him that Hairion was a “miserable Jesuit,” was blinding him, and that van Roosbroeck “would cure him in six weeks.”^{43(p249)} It is most unlikely that van Roosbroeck would malign a colleague who was a full professor of ophthalmology in the same country and with whom he cooperated as a director of the *Annales d’Oculistique*. Du Maurier’s teacher had told him that

Hairion was the best ophthalmologist in Belgium, but we know of no objective criteria for such a statement. The most powerful man in the country must have thought van Roosbroeck was very capable, since this Ghent ophthalmologist was the physician-oculist to Leopold, the King of the Belgians.

In his autobiographic novel, *The Martian*, Du Maurier says he changed his diet per van Roosbroeck's advice, but he tells us little else concerning the ophthalmologist's diagnosis or plan for treatment. Nothing was improving his sight, and Du Maurier was depressed. He tested his peripheral vision carefully and discovered his own blind spot. He made this observation by placing two lamps near each other. When he looked at one of the lamps, the other, which was just to the right of the one he was concentrating on, disappeared as if in an eclipse. He was shocked. He tested himself further using a coin on a tablecloth and confirmed the earlier observation that part of his visual field in the remaining eye had a dense scotoma.

Unable to sleep that night, Du Maurier revisited Hairion the next day. Hairion listened carefully, dilated the right pupil with atropine, and examined the eye with an ophthalmoscope. He became very introspective and led Du Maurier into his library (Figure 10). He spoke very seriously while petting his small greyhound that lay in a basket next to the fireplace. Hairion asked Du Maurier about his finances and if he was interested in music; he told him that music can be an "immense resource." He asked whether Du Maurier was religious, since "you will need all your courage and your religion to hear and bear what it is my misfortune to have to tell you. I hope you will have more fortitude than another young patient of mine (also an artist) to whom I was obliged to make a similar communication. He blew out his brains on my door-step!"^{43(p256)}



FIGURE 10

George Du Maurier. *Hairion and Du Maurier*. Engraving on paper, 1898. 9×11 cm.

"I promise you I will not do that," Du Maurier replied. "I suppose I am going blind?"

Hairion answered, "I grieve to say that the fatal disease, congestion and detachment of the retina, [earlier he had said just congestion] which has so obstinately and irrevocably destroyed your left eye, has begun its terrible work on the right. We will fight every inch of the way. But I fear I must not give you any hope, after the careful examination I have just made. It is my duty to be frank with you." He advised religious faith, led him to the door, politely bowed with his cap, and took his full fee "with his usual grace of careless indifference, and gently shut the door on him. There was nothing else to do."

Du Maurier left in a daze, due in part to the atropine, but even more from the prognosis he had just received. He walked the streets of Louvain for hours, went to Brussels for dinner, then returned home on the train, "expecting that the retina of his right eye would suddenly go pop."^{43(pp258-259)} He thought about the future and the possibility of having to earn a living as a blind singer and guitar

strummer in some café. He stopped at a photographic studio to obtain potassium cyanide powder, then returned to his room, where he wrote suicide notes to family and friends. He dropped the cyanide into a glass of water and smelled its odor of bitter almonds but did not have the courage to drink it.

From this point on there is no question that Du Maurier's narrative leaves fact behind and becomes a work of fiction. He describes awakening the next day to find a letter from a supernatural source, telling him that he is a hypochondriac, that Hairion is a fool, and that the vision in his right eye is probably safe for the rest of his life. He is a victim of self-deception. Hairion is "new to the ophthalmoscope. The old humbug never saw your right retina at all—nor your left one either, for that matter. He only pretended, and judged entirely by what you told him; and you didn't tell him very clearly." He's Belgian and "doesn't think very quick." You found your normal blind spot. "There is no sign of congestion or coming detachment whatever."⁴³(pp263-264)

Du Maurier spent nearly 2 unhappy years in Belgium. Losing one eye changed his outlook toward the world and the direction of his career. He became withdrawn and depressed and never regained the optimistic spirit he had enjoyed in Paris. Later he regained his composure, at least outwardly, but never was able to escape the fear of total blindness. He gave up his goal of becoming a great painter. Although he became a well-known cartoonist, he always felt that illustration was below painting on the list of artistic skills.

Du Maurier followed the advice of his best friend in Belgium, the artist Felix Moscheles, who suggested he consult a German ophthalmologist, Friedrich Hermann de Leuw (1792-1861). He was also known as Hofrath de Leeuwe. Hofrath is an honorary title given by princes to court councillors. De Leuw practiced in the village of Graefrath, near Dusseldorf, in Prussia. Patients came to his clinic from all over Europe. It was a favorite medical destination for affluent British and American patients. When Du Maurier went there in 1859, he noted that the clinic, which was located in a hotel, was always crowded, and many patients wore green eye shades, blue spectacles, or black patches. According to Du Maurier, de Leuw was a "splendid, white-haired old man, of benign and intelligent aspect, almost mesmeric."⁴³(p284) The ophthalmic historian Julius Hirschberg described him in similar terms, as a kind and handsome man who was totally devoted to his patients.⁴⁵ His clinic turned a village of 1200 people into a tumultuous city of foreign visitors. Patients would wait for hours or even days, until they could be seen. De Leuw ignored the class distinctions that were usually made at that time and would treat a poor beggar the same as a rich merchant, a high-ranking military officer, or even a prince. De Leuw worked from early in the morning until evening, taking a short break at noon, and would see as many as 300 patients daily. At that time few European ophthalmologists did much surgery, but de Leuw removed hundreds of cataracts every year and would operate on as many as 25 patients per day.

Du Maurier, his mother, and his sister moved to Dusseldorf to be near de Leuw's clinic, where Du Maurier was treated at weekly intervals for a year. Dusseldorf was a pleasant place in a picturesque setting. It was a social destination, particularly in the summer. Young women, such as Du Maurier's sister, went there in search of marital prospects. German military personnel enjoyed the place immensely.

De Leuw asked Du Maurier many questions, but his physical examination was limited. Though he did not use an ophthalmoscope, he spoke with authority. The diagnosis he made for Du Maurier is not known, but he clearly said the vision in his left eye was gone forever and the prognosis for the right eye was good, if he cared for himself properly. He gave Du Maurier eye drops to use, but their contents are not known. De Leuw's pleasant demeanor and the favorable outlook made Du Maurier much happier. Du Maurier had come to Dusseldorf with a plan to write a novel. Instead, he became involved with the school of painting there and began to paint again for short periods of time. He shared a studio with a Swiss artist, but he felt that his one good eye could never tolerate the strain of painting full-time.

In May 1860, an English family the Du Mauriers knew, the Wightwicks, came to Dusseldorf on vacation. Their beautiful daughter, Emma, made a great impression on Du Maurier, who would marry her a few years later. He reassessed his prospects for the future and felt revitalized physically and psychologically. There were bills to pay for his eye care but no chance of earning money in Germany. A year earlier he had been introduced to the high-quality black-and-white illustrations of *Punch's Almanack*, and he felt he could do this type of work. His mother, his future wife, and a colleague encouraged him to move to London to see if he could make a career there as an illustrator. They sailed to England. He was at the right place at the right time, for newspapers, magazines, and book publishers were looking for skillful, imaginative illustrators.

Du Maurier lived briefly in London with his future in-laws until he found lodging with an old friend, the flamboyant artist Whistler. The art world was not very large at the end of the 19th century, and Martin, as mentioned earlier, also knew the very outgoing American expatriate James Whister. Whistler's room came with his towels, sheets, bed, even his dress-suit, when it was not being used. Soon Du Maurier found some success, and his illustrations began to appear in several British publications, including *Punch*. He was competing with a group of highly competent artists and was forced to improve his technique quickly. His early illustrations were very linear, with little shading. With practice and dedication, he refined his technique and drew with grace and elegance.

At the same time, Du Maurier tried his hand at writing short stories. He submitted them to some of the same publications for which he was making illustrations. One story was published in 1861, but after another was rejected multiple times, he concentrated his efforts on illustration. His relationship with *Punch* took 4 years to solidify. During this period he was often ill physically and psychologically. He developed severe headaches and indigestion and took large doses of quinine for relief. His oral intake was only one cheap meal a day and a glass of stout. Du Maurier sought out Whistler's brother-in-law, the physician Seymour Haden, for advice. The medications Haden gave Du Maurier did not bring about any relief. Haden's assistant, a physician named Traer, took over and found that Du Maurier was jaundiced. He advised immediate rest. Du Maurier went to Brighton, the resort town on the southern coast of England, where better nutrition, exercise, and fresh air helped him recover.

Marriage to Emma in 1863 gave stability to his life. As he had confided to a friend earlier, "Once married I am safe."^{42(p142)} Emma was totally devoted to him and later to their children. She would even read to him in the hope that he would not overwork his eyes. The editor of *Punch* nurtured him along in his career, but Du Maurier did not have a firm relationship with the magazine until late the following year, when its most important illustrator, a former medical student named John Leech, died. *Punch* was, in all likelihood, the most successful 19th century magazine. *Punch* was responsible for the modern use of the word "cartoon" to mean a comic drawing. Founded in 1841, it was considered a national institution by the time Du Maurier joined its staff. At the staff weekly planning dinners, Du Maurier never drank coffee, since he had been told it could "overexcite" his retina. When the other staff members had their coffee, he would drink a large cup of tea. He was a chain smoker and went through 40 cigarettes a day at this stage in life. After dessert at the weekly meetings, he would smoke cigars and cigarettes for the rest of the evening.

Du Maurier's eyesight remained stable for nearly 8 years. On December 30, 1871, the 37-year-old Du Maurier attended a New Year's Eve party at the home of the editor of *Punch*, Shirley Brooks, who wrote in his diary that Du Maurier sang excellently. However, on January 3, Brooks received a sad note from his cartoonist. The vision in Du Maurier's better eye had begun to diminish, and the artist was extremely frightened. He had a wife and 4 small children to support but no savings to fall back upon. A group of his friends agreed to help the family out financially if he could no longer work.

Du Maurier consulted the most prominent ophthalmologist in London, Sir William Bowman (1816-1892), who advised him to stop working and to return in about 10 days for reassessment. On January 4, Brooks made this entry in his diary: "Dear old Kiki [Du Maurier's nickname] called. He came up to my den. At first he was hysterical, but soon rallied. I think he chiefly wanted to talk to a friend, but his desire was to know whether, if he ceased to be able to draw, his writing could be available, on which I gave him the strongest assurance that it could and should. But I did not gather that Bowman, the great oculist, has given him reason to despond—rather the contrary, but K. declares he knows himself & his constitution best. It is very sad to see him, so full of life, & esprit, & affection, mournful for such a cause."^{42(p236)}

The standard biography of Du Maurier says, "It was not until 14 January that Du Maurier's oculists could give him a favourable report on his eye."^{42(p236)} (Although the word oculists is plural, Bowman is the only one mentioned.) Bowman was one of the most famous ophthalmologists of all time. He is remembered today for the layer of the cornea he described and for various surgical instruments, including his lacrimal probes. Bowman allowed Du Maurier to begin drawing again in February 1872, but only if he would work on a larger scale, thinking this would reduce strain on his eye. I have been in contact with descendants of Du Maurier and Bowman, but no one has Bowman's records or any other pertinent information about his care for Du Maurier.

Du Maurier had difficulty following Bowman's advice to work on a larger scale. He had been trained to do the opposite, and as a moderate myope, working on a small scale came naturally. He did begin to make his cartoons twice as large as previously. These drawings were then reduced photographically, and an engraver would cut the image into a wood block. The transition was awkward for Du Maurier, and his work shows this. The drawings look stereotyped, not creative. The grace and flair of his earlier work disappeared.

What was the proper diagnosis for Du Maurier's ocular problems? Du Maurier's earliest ophthalmologist, Hairion, at first said that the loss of vision in the left eye was due to congestion of the retina. In modern terms, this might mean a retinal vein occlusion, although at age 23, he was a bit young for this. (Had he been a pregnant woman, the likelihood would have been higher.) He had several risk factors for a vascular disease, not the least of which was his heavy cigarette smoking. There was a family history of cardiopulmonary disease. As a young man he lived on the edge of poverty and his dietary habits were unhealthy. When he did eat, the food was often lipid-laden, full of refined carbohydrates, and washed down with an alcoholic beverage. He was excitable and his catecholamine level must have been high. As an artist he was exposed to many toxins, including heavy metals in pigments and solvents such as turpentine, which can contribute to vascular occlusion. Also, his earlier career in analytic chemistry exposed him to many toxins. We do not know if methanol was one of them, nor do we know if he was exposed to cannabinoids, although hashish use was common in Bohemian artistic circles.

Central serous chorioretinopathy is a possible diagnosis for the problem of Du Maurier's left eye. Being a man, in his 30s, with a high-strung personality, he fit the demographic pattern for this entity. Du Maurier described micropsia with this eye, which is compatible with this diagnosis. However, the severity of his visual loss and the fact that his vision never improved are points against the diagnosis. This disease was first described by Bowman's friend, von Graefe, in 1866 but was not easily recognized with early ophthalmoscopes.⁴⁶

Retinal detachment, the second diagnosis Hairion gave Du Maurier, was probably the correct one for his left eye. Photographs show that Du Maurier wore glasses, and he was a moderate myope. Myopes may get detachments early in life from small inferior breaks in the retina and may not be aware of them, because of the inferior location, until the detachment reaches the macula. There were no prior symptoms such as flashes or floaters, but these may not occur in this type of detachment. Du Maurier's description of his sight with the poorer eye is consistent with an inferior detachment: "But when alone in his garret, with his seton-dressing and dry-cupings, it was not so gay. He had to confess to himself that his eye was getting slowly worse instead of better; darkening day by day . . . He could still see with the left of it and at the bottom, but a veil had come over the middle and all the rest."^{43(p214)}

The differential diagnosis of Du Maurier's initial ocular problem includes some less likely items. Loss of central vision from a neovascular membrane is unlikely, since Du Maurier described essentially total loss of vision in the left eye. There was no known infectious disease such as toxoplasmosis, sinus trouble, glaucoma, iritis, blood loss, or systemic disease. Nor was there any obvious congenital abnormality. Optic neuritis would present differently and would perhaps show improvement over time. He was too young for temporal arteritis to be a serious consideration. The chronology of his autobiographic novels is not very helpful in providing a

good sense of timing of the events.

When Bowman examined him in 1872, Du Maurier's difficulty in his better eye, the right one, was not likely to have been in the anterior segment. A corneal opacity, iritis, or lens opacity should not have been difficult to diagnose, and the treatment speaks against these possibilities. The ophthalmoscope had been available for more than 2 decades, and Bowman was probably the first ophthalmologist in Great Britain to have one. The esteemed German ophthalmologist Albrecht von Graefe (1820-1870) had a very early version sent to him. Most likely Du Maurier suffered from a retinal problem that was not easily visualized, probably in the macula. Bowman's recommendations are consistent with this. (His treatment for Du Maurier is similar to that given Edgar Degas, the French Impressionist, by his ophthalmologist, Edmond Landolt.⁴ Occlusion, rest, and a dark environment were the measures recommended for Degas in 1891.) Du Maurier's sight improved to the point that he was able to continue creating illustrations for *Punch* for nearly 2 more decades. However, his wood block engravings in *Punch* were transcriptions of his drawings, cut into the wood by professional engravers. They are only indirect evidence of his visual acuity.

The difficulty with the better-seeing right eye began in 1891, when he was 57 years old, and lasted until his death from heart failure in 1896. It could have been a maculopathy secondary to his myopia. Chronic central serous choroidopathy is also a possibility. He was a heavy smoker, which could have been a contributory factor. He often consumed large amounts of quinine as a tonic, and this drug can be toxic to the center of the retina as well.

Du Maurier retired from *Punch* in 1891, saying his eyesight was too poor for him to continue as an illustrator. A letter from February 1892 indicates his central retina was not functioning normally: "About my drawings I draw very big & make studies beforehand, it takes me double the time & I'm very nervous—the spot though small is still there & I can't see the whole of the face when I'm drawing it."^{42(p441)} The right eye did allow him to write until his death at age 62. His most famous novel, *Trilby*, was published 2 years before he died, and *The Martian*, which contains a fictionalized account of his eye problem, was published the year after he died. Both novels were illustrated by the author, but the engravings were made by others using his drawings as models, so the extent of detail in them cannot be assumed to be what Du Maurier saw.

CONCLUSIONS

Each of these artists was affected to a different extent by eye disease. Homer Martin adapted relatively well to his cataracts and never underwent surgery. He was fortunate in that his loose style, which accompanied his reduced vision, coincided with the increased popularity of less detailed painting. His late paintings create a characteristically misty environment, which appealed to contemporary critics and collectors. These paintings have stood the test of time and many are in well-known museums today. While he was active, late in the 19th century, another group of artists, the French Impressionists, was also working in the same direction, creating works in less detail than had been the prevailing style earlier in the century. Claude Monet typifies the French group, and his paintings are extremely well known today for their loose brush stroke. Monet also developed cataracts late in his life. His vision dropped to light perception, right eye, and 20/200 left eye, and he underwent surgery to the right eye in 1923, when he was in his 80s. If Martin or Monet had been working during the first half of the 19th century, they would have encountered severe difficulty selling paintings and receiving critical approval, for a loose manner of painting was not at all to popular taste then.

Henri Harpignies, who lived for almost a century, probably developed cataracts and age-related macular degeneration. His style of painting was remarkably consistent, considering the length of his career, but at the end of his life he had difficulty with details, probably because of macular degeneration. There are some changes evident in his use of color in his late paintings, probably due to nuclear sclerotic lens opacities.

Unless glaucoma affects central vision bilaterally, it is not likely to have much effect on an artist who has the time to deliberate about his work. Jules Chéret, who had the bad luck of losing both eyes to angle-closure glaucoma late in life, was forced to give up his career on account of blindness. Even today there are major gaps in our knowledge about medical details of his late years and why treatment failed him. Louis Valtat suffered from glaucoma, presumably open-angle glaucoma, which destroyed his central vision at age 78, in 1948. He stopped working at that point. Auguste Ravier lost one eye to neovascular glaucoma but was able to work for the rest of his life with the other eye, even though it developed a cataract. Changes in details and colors are evident in his late work, due to the cataract and not glaucoma. Roger Bissière did well following filtration surgery for glaucoma.

George Du Maurier lost one eye relatively early in life to what was, in all likelihood, a retinal detachment. He spent the rest of his life afraid of losing the remaining eye. Eventually he developed difficulty with the central vision of his better eye, probably from a maculopathy, and gave up illustration at the end of his life. His success as an author provided him some consolation.

These artists, with the exception of Chéret, are not well known today but may become better known in the future. History has shown that taste in the fine arts may be fickle, so that artists who drew little attention during their lifetime may become extremely popular later. Vincent van Gogh is a case in point. The reverse is often true, with favorites of one age becoming forgotten in a later era. A whole school of 19th century academic painters was forgotten during the first half of the 20th century, when abstraction came into vogue. Culture is not science, and criteria for acceptability differ. The ocular problems of artists as famous as Monet, Cassatt, and O'Keeffe are well known, so that investigating lesser-known figures can be refreshing.

The travails of these artists involve several different diseases, which share the common thread of ocular problems as severe threats to their ability to be productive. However, the extent of the eye disease varied for these men and had different results. Cataracts affected Martin and Harpignies but did not blind either one of them, so each was able to work up to the end of his life. Glaucoma affected the 4 artists described above differently. Presumed central retinal dysfunction affected Harpignies and Du Maurier differently. Harpignies's problem occurred late in life and did not have a great effect on him. Du Maurier's difficulties began much earlier and

were a major concern to him for most of his life. He was fortunate to have an alternative career as an author.

Visual loss created severe psychological problems for most of these artists. In the case of Du Maurier, the relatively early onset of blindness in one eye, with no cause obvious to him and no certainty that he would not lose his remaining eye, made him extremely anxious and depressed. The inconsistencies of diagnoses and prognoses given Du Maurier by the ophthalmologists he consulted must have been disconcerting. He was treated by de Leuw many times for about a year in Germany, so that ophthalmologist must have provided him some consolation, even if de Leuw never examined Du Maurier's retina. Similarly, Martin became anxious and depressed because of his failing eyesight. His ophthalmologist could do nothing for the eye that was lost to optic nerve disease and treated the cataract in his remaining eye conservatively. As with Martin, Ravier lost the vision in one eye and the cataract in the other was never removed, although the technology to do so was available. Remarkably, Chéret was able to maintain his disposition, at least outwardly, despite near total blindness. He was fortunate that his visual problems occurred at the end of his life. Valtat also suffered profound loss of vision from glaucoma, which forced him to give up his career, but we know little about the effect on his psyche. Bissière was depressed when he lost vision from glaucoma, and the calamity of World War II in France compounded the effect. Bissière was fortunate that his surgery was curative. Ravier also benefited from ocular surgery. One conclusion from the histories of these artists is that advances in ophthalmologic care should provide a sense of optimism for the future.

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