

# Mystic Cameras

Stephen R. Wilk

Mysterious photos taken by lightning. Perfectly preserved images captured on the retina of a dead man's eye. Are these bizarre phenomena grounded in fact or examples of science fiction?



Illustration from Jules Verne's 1902 novel *Les Frères Kip*.

The idea that a powerful natural force can produce mysterious effects is a common one in literature and folklore. In the movie *Frankenstein*, for example, electricity is used to bring the monster to life. Edgar Allen Poe wrote three stories that played with the same concept. Similarly, there have been folk legends alleging that non-human forces have produced inexplicable phenomena in the areas of hypnotism, X-rays, cosmic rays, radioactivity, and, most recently, genetic engineering and nanotechnology.

Legends have also circulated about a kind of mystic photography. The idea that “a man commanded the sun to paint his portrait, and it did” (as Poe put it in *The Thousand and Second Tale of Scheherazade*) at one time seemed utterly amazing and unbelievable. But in the early 19<sup>th</sup> century, there were many

reports about “photographs” being made on the glass of a window by the action of lightning. No lens or imaging apparatus was involved, and the image was not a silhouette.

## Lightning photos

In a typical story, a person who died during a thunderstorm, or who was nearby when lightning struck, was said to have had their features preserved on the glass as if by photography. According to one account from Frank Edwards' 1959 book *Stranger than Science*, an old woman died after lightning struck a tree near her 8 × 10 window. “When the neighbors went to lay her out...they discovered... that on one of the panes of glass in the window against which her bed stood was a perfect photographic likeness of her as

she appeared in her neat cap and gown.” Other reports suggested that the image had been preserved on a mirror.

As folklorist Barbara Allen notes, all of these stories originate from local newspapers in the 1870s to 1890s, although none of the “lightning” photographs have been examined by scientific investigators. Accounts of such photographs have long since evaporated, but there continue to be reports of suspiciously similar religious imagery appearing in glass and other media.

It seems pretty obvious that these lightning photos are examples of urban legends from more than a century ago. But why did they emerge when they did, and then so rapidly fade away? Although photography had been around since the 1830s, it wasn't until the mid-1850s that glass plates were introduced. Allen argues

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that "...the introduction of glass plates in 1851...made photography a truly democratic invention."

But, although common, the mechanics of photography remained mysterious and vague to the same Americans who were its customers—inviting imaginative speculation as to how the process worked. The photographer snapped the portrait, then disappeared into his wet chemistry lab to perform odd manipulations on a glass plate. Add the use of magnesium flash powder to illuminate an indoor scene, and you have something not far removed from the lightning photos being reported at the time.

Celluloid was introduced as a base for photographic emulsion in the 1880s, claims Allen. This development broke the association of photography with glass in the popular mind, and stories of miraculous glass photos soon disappeared from the newspapers.

### Optography

Another series of stories involves miraculous images appearing on the retinas of the eyes of the deceased. In its full-blown form, the legend contends that the last sight of a murdered person is preserved on his or her eyes and can be recovered and used to track down the killer

The earliest known account of this idea can be traced back to 1857. The magazine *Notes and Queries* cites the *New*

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*York Observer*, which, in turn, reports from an undisclosed English newspaper:

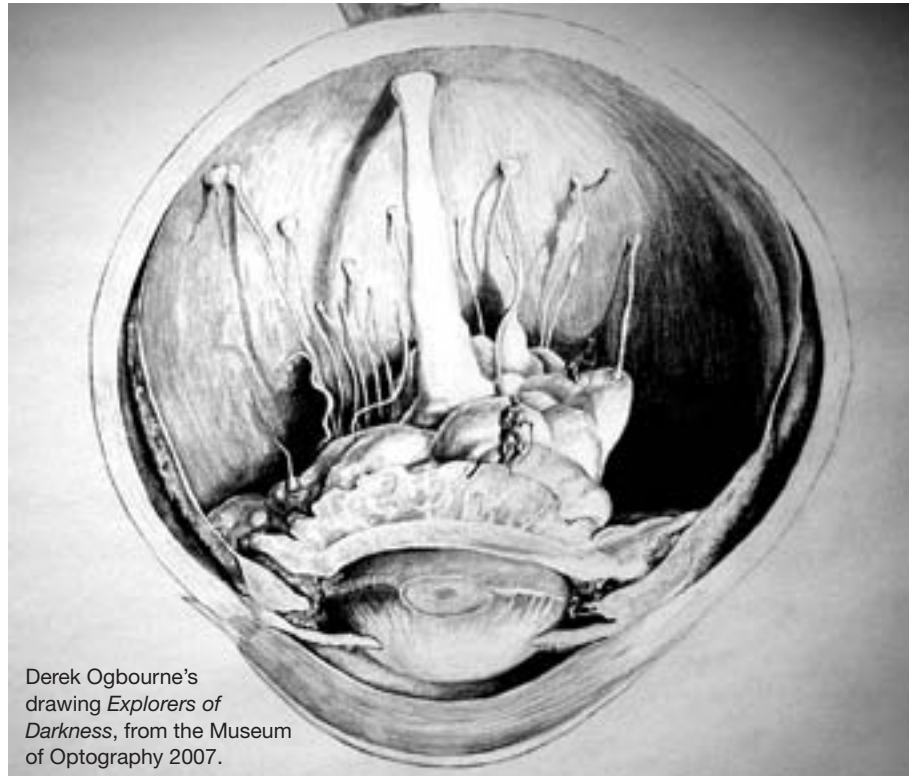
“...that the last image formed on the retina of the eye of a dying person remains impressed upon it as on a daguerreotype plate. Thus, it was alleged that if the last object seen by a murdered person was his murderer, the portrait drawn upon the eye would remain a fearful witness in death to detect the guilt, and lead to his conviction.”

The mechanics of vision have been understood since Johannes Kepler in the 17<sup>th</sup> century. Christoph Scheiner was able to verify Kepler’s theory of imaging upon the retina by dissecting cow eyes. Researcher Arthur Evans notes that these reports follow Helmholtz’s 1850 invention of the ophthalmoscope, which allowed direct inspection of the retina.

A French report from 1863 claims that an English photographer was able to obtain a photograph from the eye of a steer shortly after its death, and the image showed “details of the cobblestone floor of the slaughterhouse.” The idea was so common that Villiers de l’Isle-Adam used it in his 1867 short story “Claire Lenoir.” The story first recounts as fact that the eyes of animals recently killed retain images of their place of death, then goes on to describe a case in which such an image is retained in a human eye.

All of this, despite the assurances of accuracy, was utterly without any real scientific backing. That was to change in 1876, when Franz Boll at the University of Rome isolated the biological pigment associated with sight, which he called visual red, but which soon came to be called visual purple or rhodopsin. His colleague in Heidelberg, Wilhelm Friedrich Kühne, soon absorbed himself in the study of rhodopsin, and he actually performed experiments like those that had been described in the press.

He allowed the eyes of an albino rabbit to dark-adapt (ensuring a large stock of rhodopsin) and then permitted an exposure of several minutes of a scene of a barred window. He then executed the



rabbit, rapidly removed and dissected the eyes and “developed” the retina in a solution of alum. The result was a biological photograph that showed the clear image of window bars. Kühne called it an optograph, and proceeded to make more.

The legend contends that a murdered man’s last sight is preserved on his retinas and can be recovered and used to track down the criminal who killed him.

This remarkable development lent credibility to the stories that were circulating about preserved retinal photos in the same way that laser had “validated” the science-fiction notion of the ray gun,

as first suggested in H.G. Wells’ *War of the Worlds*. Kühne provided a reason for people to believe that there was truth in the idea that one might catch a murderer through postmortem studies of retinas.

But there was still little basis for the belief that the retina of a murder victim would retain useful information about his or her assailant. The leap from rabbits to humans was a large one, and there was a vast difference between the careful preparation of Kühne’s test animals and the case of haphazard human victims examined hours or days later.

There were, in fact, actual tests on humans. Kühne himself excised and treated the eyes of a criminal who had been guillotined. However, he obtained no discernible images from them. Furthermore, in 1869 the Society of Forensic Medicine in France asked Dr. Maxime Vernois to study the problem. His report, issued in December of that year and subsequently published, saw no utility in the practice of trying to preserve retinal images at all.

Nevertheless, the idea was too powerful not to be used in fiction. Rudyard Kipling writes about the images from a

[ Kühne's rabbit-eye "optograph" ]



The rabbit's last view.

dead man's eyes in his 1891 story "At the End of the Passage," and Jules Claretie mentions it in his novel *L'accusateur: L'oeil du Mort* in 1897. The motif was also used in Cleveland Moffer's short story "On the Turn of a Coin" (1900), in Jules Verne's novel *Les Frères Kip* (1902), and in Thomas Dixon's novel *The Clansman* (1905), upon which the film *Birth of a Nation*

[ References and Resources ]

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was based. James Joyce even describes the idea in passing in *Ulysses*.

In her 1999 article in the journal *Folklore*, Veronique Campion-Vincent's article lists several more recent works in which the notion of the "death photo" is mentioned, but it came out too early to include one of the grisliest fictional examples in recent years. In the 1999 film *The Wild, Wild West*, light is

projected through the back of a dead man's retinas as if they were biological slide projectors, throwing his last sight upon a wall. More recently, Derek Ogbourne has put together a traveling exhibition and anthology, *The Encyclopedia of Optography: The Shutter of Death*. ▲

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