The eye, its powers and the photographic camera: 19th century ideas of ‘automatism’

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The History of Photography has been selecting photographs that in some way fit within western erudite cultural tradition. They correspond to patterns of reception, organization and cataloguing, which depend upon that tradition. This patterns underline representational tradition centered in renaissance perspective, and are supported by a rational discourse that also selects rational discourses about photography, locating this last one in a sort of continuum within the history of “art”.

Meanwhile, what we could nominate as the photography *imaginarium,* had been improved far beyond the reasonable, with a prolixity and a reception that largely overcame the positivist and rationalist circles within it was (also) born. If we just read specialized newspapers and magazines from the years that followed the invention of photography, we can see the wide range of publics they were addressing to, which collaborate and contribute to them. It was also very evident in scientific newspapers, academic reviews, and popular magazines, and just after the 50’s of XIX century, that photography was not just a matter of art or of ‘pictorial’ representations that would overcome painting.

To Bill Jay, the reading of early photography periodicals reveals a whole world that is not usually reported in the traditional historical accounts, because authors are generally worried about “art” and its patterns of representation. The reason for this ‘effacement’ lays in the fact that these historians share common point of views:

> “*They look back at the past in order to discover people, processes, images and events which act as direct precedents for contemporary*

> *attitudes. (…) The past is used to justify the present. Inevitably, the rigid and restrictive selection process eliminates the mistakes, human foibles, and false avenues of enquiry and abortive enthusiasms of the early practioners while creating a lineage from then to now. This is what I call the outside-in view of history.*"[1]

Also, in the History of Photography's culture there are not just photographs. A lot of expectations, fantasies, deliriums, inspired in a so impressive technology have come along. It was reading Bill Jay's book that I became particularly interested on *optography*. 'Optography' means the photograph that (hypothetically) is made by the eye itself, and that gets imprinted on the retina in a way that can be observed *postmortem* or even photographed. It was an idea that came along the last half of XIX century, although the term was not used generally, except in a scientific context. It's about these "impossible photographs" that I would like to write here.

Optography trough its different names has been feeding popular and more erudite minds over decades. Scientific papers, entertainment journals, popular almanac, national daily newspapers, with broad distribution over the five continents, have been publishing notes more or less expanded, more or less 'scientific' about it, sometimes barely sustained except in commonsense superstitions.

Coming across all these kind of 'sources' we found ourselves recalling Michel Foucault's 'discursive formations' concept, naming the proximity of enouncements that come from very different places, or spaces, but which, in its contents, share the same theme but not necessarily the same 'object'. It means that sometimes these narratives configure deeply different discursive natures (from scientific to commonsense, from literary to ideological ones), although, apparently, they are speaking about the same thing[2].

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[1] Bill Jay "Cyanide & Spirits/ An Inside-Out View of Early Photography", Nazraeli Press, Munich, 1991, p. 2

[2] As Foucault says, in *Archéologie du Savoir* (1969), the discursive formation as a relation between enouncements that sometimes "are not identical trough time": "But perhaps one might

Actually, in a certain way, they are. I this paper I will follow the different forms this narrative took inside the nineteenth century culture, the distant places from it was brought out, the ways it interacted with so different forms of constructing reality, in their *appearance* and *dispersion*: literature, science, rumors, forensic science…

The first scientific ideas about retinal images, according to Bill Jay, would have been written by William Scoresby, about which there is an abstract on the volume "Abstracts/Reports of the British Association for the Advancement of Science". He speaks about the persistence of images in the retina, after seeing persistently an object and closing the eyes and employs the term "photograph"[3]. But in fact, Scoresby doesn't seem to be talking about fixed images in the retina, but of those images that are kept in the retina for a certain period of time. He is not talking about "the last image" obtained but of the experiments of a new branch of science, that of the physiology of the eye and of the study of different layers that were being observed inside the living eye by that time.

This interest on the interior of the eye that was leading physiology and photochemistry since the first decades of XIX century was surely been revaluated by Helmholtz's discovery of the ophthalmoscope in 1851, as several authors had already pointed out[4]. Thenceforth, and although all the

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discover a discursive unity if one sought it not in the coherence of concepts, but in their simultaneous or successive emergence, in the distance that separates them and even in their incompatibility. One would no longer seek an architecture of concepts sufficiently general and abstract to embrace all others and to introduce them into the same deductive structure; one would try to analyze the interplay of their appearances and dispersion." M. Foucault, *Archéologie du Savoir*, Paris, Gallimard, 2004, p. 52.

[3] According to the report Scoresby would have demonstrated that "on closing the eyes gently, with the head kept steady as when gazing the image or picture was seen, or, as the author expressed it, 'photographed on the retina' (…) Pictures of a window were retained for an hour, whilst breakfast was taken and other objects pursued.. By means of partial black screens, pictures were *composed* out of different portions of an illuminated object, and curious dislocated representations of a statuette, or multiple figures were obtained (…)." *Abstracts, Reports of the British Association for the Advancement of Science*, 1854, Liverpool, vol. xxiv, pp 12-13.

[4] For an overview and sources on the study of Vision, cf. Nicholas Wade, *A Natural History of Vision*, Cam., Mass., The MIT Press[1998]1999; for discussion of the role of the ophthalmoscope in science of vision and on the models of comprehension of the retinal images, cf. N. Wade, "The eye as an optical instrument: from camera obscura to Helmholtz perspective", *Perception*, 2001, vol.30, pp 1157-1177; C. Richard Keeler, "The Ophthalmoscope in the Lifetime of Hermann von Helmholtz", *Archives of Ophthalmology*, vol. 120, FEB 2002, pp 194-201; Jutta Schickore,

improvements this device had to suffer along the years, a whole field of study, concerning the properties of the retina was opened. Now it was possible to see the interior of the live eye. With the ophthalmoscope, not only the medical observation was revaluated, but also scientific experimentation, which was beginning to fix itself as the basis for scientific research of the eye, could now trust on a new and exceptional tool[5].

The marvelous world inside the eye brought to the light by this apparatus has been spread out also in public opinion, because a scientific article directed to the great public, commenting the possibility of the image produced by the eye, by W. S. Bird, concludes:

> "*The retina becomes the microcosm man has been said to be, and that we are fearfully and wonderfully made may be better realized now than in the old time.*"[6]

It was only in 1877 Franz Boll that discovered that the retina contained a red pigment, which he called visual red and later "visual purple" or "rodhopsin". This discovery contested the commonsense about the eye's physiology, which maintained that inside the retina there was nothing but opaque grey. In the same

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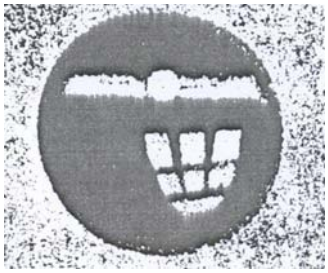
"Misperception, illusion and epistemological optimism: vision studies in early nineteenth-century Britain and Germany", *British Journal of the History of Science*, 39(3):383-405, Set. 2006.

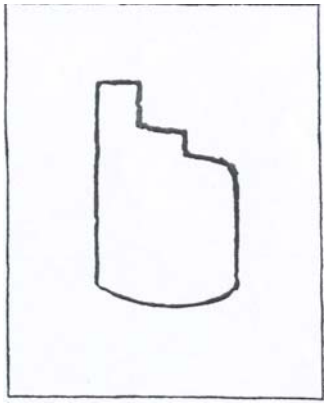
[5] Wade could resume the impact of the ophthalmoscope: "New experiments could now be performed on vision, and its study could, in fact, be transferred from the natural environment to the laboratory, where the methods of physics could be applied. The eye had become a subject of exact science with its demands for experimentation and measurement. It was now an optical instrument in the true sense of the term, having once been a symbol of mystery. See N. Wade, "The eye as an optical instrument…", 2001.

[6] W.S. Bird, "The Photography of Vision"*The Photographic Journal /Journal of the Photographic Society*, New Series, 1.-3, p. 23.5.1879, 96. Some widespread publications like *Good Words* or *All The Year Round* were publishing articles about the 'powers of the eye'. In 1862 the last one publishes an article entitled "The eye-its structure and powers", were an extended synopsis on 'the state of art' of eye's knowledge is done, beginning by a philosophical consideration: "Although all parts of human body have been created by the same Divine Hand, and they exhibit the same useful and marvelous adaptations for the human use, the human eye prevails over them all as the body's light, being the organs trough witch we get acquaintance with the minuscule and the enormous, with the biggest and distant work of the Creator." In *All the Year Round*, 1862, pp. 170. Arthur Evans, in his paper "Optograms and Fiction" (see *Modern Fiction Studies* **xx** (3 #61), Nov. 1993, 341-6) makes a direct approach between 'optography' tales and the invention of the ophthalmoscope.

year, Wilhelm Kuhne dedicated himself to experiments on “optograms”, the name he gave to the image that remained in the retina after the animal — he used rabbits or frogs — was decapitated. Kuhne thought that if the retina bleached with light it would be possible to obtain an image and fix it, if it would be the last one seen[7]. He did made at least an image upon the eye of one of these rabbits, and it was published like this, showing the squares of the window Kuhne had been showing to the rabbit just before he decapitated it:



Over a couple of months he worked on these tests, and he went after the eyes of a condemned man. He got the eyes just after the man had his head severed off and ran to the lab with them to develop the desired image; but he has got just this one, which he never could identify with anything palpable:



[7] In the section of “Visual purple”, Kuhne explains: “Since normal vision is evidently only possible so long as a balance is constantly maintained between the bleaching of the visual purple of the rods on the one hand, and the purpurogenous activity of the retinal epithelium on the other, it is obvious that one can only expect to obtain permanent optograms when that balance is destroyed, either by the epithelium, in spite of its continued functional activity, being insufficient again to colour the rods, or in consequence of circumstances which prevent the epithelium from performing its functions.” W. Kuhne, *On the photochemistry of the retina and on visual purple*, [trad. by M.S. Foster] ed. with notesby M. Foster, 1878: 83

Although these experiments did not keep so long the attention of Kuhne, he dedicated seriously during some time, having conclude, finally, that the eye was to be seen not as photographic camera, but as an "entire photographic workshop"[8].

Maybe it was not so stressing to Kuhne the idea of making a photograph with eye, as just to investigate about the photochemistry of the retina and to understand the migrant pigments of the live retina. Something, meanwhile, was already in the air about eyes, photographs… and dead bodies, since twenty years before.

Around 1857, and before any scientific investigation had been yet brought to light, newspapers began to talk about the possibility for the human eye to take a picture, and so, the increasing interest in the physiology of the eye seems to turn out the interest in the photography to the interest on the eye itself (or in the image inside the eye). In an issue of *Notes and Queries* of 1857, an amazed journalist asks: "*What is the meaning of this (…)? Are our friends 'over the water' hoaxing us, as is their word, or is there a shade of truth in the details of the experiments said to have been made?*" In the meanwhile, whilst he defies incredulity, he gives us all the account:

> "*The astonished and intensely interesting fact was recently announced in the English papers of a discovery, that the last image formed on the retina of the eye of dying person remains impressed upon it as on a daguerrean plate.*"[9]

In 1963 William H. Warner, a photographer, wrote to a lieutenant of Scotland Yard telling about an experience he has done with a cow: after he has removed the eye of the dead cow, he found the squares of the pavement of the bowery inscribed in the retina of the animal. Following this discover, he wandered the

[8] "The retina, so long as it is maintained in its natural connections with this epithelium, resembles not so much a photographic plate as a whole entire workshop, in which the operator, by bringing new sensitive material, is always renewing the plates, and at the same time washing out the old image". W. Kuhne, *On the photochemistry of the retina and on visual purple*, 1878: 12

[9] *Notes and Queries*, #92, Oct. 3, 1857, p. 268

policeman, recalling a recent crime committed in London, if it wouldn't be useful to check the retina of the dead person. Exchanges of serious letters about this possibility were changed between the two, as Bill Jay has already given the account[10]. At the time of Warner's worries, correspondents of Americans *The Littel's Living Age* and the *The Manufacturer and the Builder*[11], and also a significant number of British newspapers had come along with the matter.

But what really matters in this story is not so much to find the exact beginning – which more or less impossible – as to underline its modes of appearance, its multiple tentacles. They seem to be a symptom of a desire more than the fruit of an empirical observation, which should be grounded on experimental methods, as it was the up-to-date on positivist science. This tale addresses, at the same time, the obscure invisible world of nature – a supposed, or imagined, "ophthalmic" workshop – and the expectations about a body-machine's rationality, like the camera, which can register the truth of what have been seen by the simple movement of the eye over the object that is in front of it[12]. As the body becomes more and more explored, new features are also expected, sometimes coming from technological myths.

It is between these contradictory ideas that the *optography* tale was built. It speaks to us about the unseen (the deep rooted visual purple in the retina) and the overseen (the crime). It shows, at the same time, an action that is being done

[10] *The Photographic News*, vol. vii, nº 244, 8 Maio,1863, p. 226. Cf. also Bill Jay, *Cyanides & Spirits*, 1995.

[11] *The Manufacturer and the Builder*, Baltimore, vol. 2, Issue 10, October 1870; *The Littel's Living Age*, New York, Fifth Series, vol. 63, April/May/June 1877. The list of little news, letters on the subject wandering upon it, greater articles explained a whole plot about 'retinal images' of the murderers related with serial crimes exhausting, repeating each other frequently from *Corriere della Siera* on Florence, Italy, to the *New York Times* or *The Morning Post* (London).

[12] If we follow the analysis of another photographic myth that was spread out more or less the same period (the tale of the 'image-on-the-glass'), at least in America, by Barbara Allen, we have to consider also the 'mystery' that photography plates must have constituted at that time, thus contributing to the most fantastic ideas about parallels between photography and other 'devices', even found in the human body's interior. Allen begins her paper to stress the idea that we have to look upon not to grope for historical. "monogenetic beginnings", but rather to identify " the circumstances out of which the forms developed in order to account for the specific features of characteristics they display". Cf Barbara Allen, "The "Image on Glass": Technology, Tradition and the Emergence of Folklore", *Western Folklore*, vol. 41, nº 2 (Apr. 1982), pp 87.

by the victim (an *overacting*) and the product of violence, an action provided by the murderer.

That's why it is comprehensive the zigzag between the enormous *euphoria* that comes from those who believe in the magic generalization of scientific procedures to forensic science, procedures that scientist had left behind, and the *disphoria* that comes from those which refuse to abandon this same positivism, deluded by such an idea can be true. It is the case of an article, published under the title "Ancient and Modern Superstitions in Science", in *The Manufacturer and the Builder*:

> "*A recent notion was that the likeness of a murderer could be found photographed inside the eye of his victim. Of course, such an idea could only arise in the in the brain of a person utterly ignorant of photography or anatomy, and unware of the complexity of conditions of which a complete and regular sucession is required in order to make image a possibility. Notwithstanding this, the idea had taken such a complete possession of the public mind that, in a recent murder casein New York, a scientific expert was required publicly to declare, at the* post-mortem *examination, that no image had been found in the eye of the victim.*"[13]

The photographic camera was invented having as a metaphorical and epistemic model in the mechanism of vision: image reversal, perspective… Within the optographic *fabula*, we are dealing with the opposite: the eye works, now, *as* a camera. Now, after having invented a machine that copied and supported the human eye, the eye itself can allow itself the power of the machine: to fix an image. The power of the machine is thence fore being transferred to the human body, and, under the sign of modernity, is now able to dissolve the frontiers between body and machine. Other frontiers are also being broken at this time:

[13] *The Manufacturer and the Builder*, vol. 2, Issue 10, October 1870, 297

between interior and exterior (with the “private man”), the animated and unanimated (with experimental medicine), rational and irrational (with psychology and psychoanalysis of unconscious), life and death (with ghost stories and spirit photography).

It is probably the neighborhood with this last broken frontier that is also working on fantasies about a body that can works like a camera. A relevant part of Poe’s writings concerned, in the beginning of 19th century, the existence of false dead persons or the false alive ones. In “The Premature Burial” Poe, writing about the fear of being buried alive, writes:

> “*The boundaries which divide Life from Death are at best shadowy and vague. Who shall say where the one ends, and where the other begins? We know that there are diseases in which occur total cessations of all the apparent functions of vitality, and yet in which these cessations are merely suspensions, properly so called. They are only temporary pauses in the incomprehensible mechanism. A certain period elapses, and some unseen mysterious principle again sets in motion the magic pinions and the wizard wheels. The silver cord was not forever loosed, nor the golden bowl irreparably broken. But where, meantime, was the soul?* ”[14]

The idea of Poe in this “tale” seems clear: he wants to exorcise the perception of the inevitable death (in a certain way to control it), once the eternity of the soul is not so close to the conscience anymore, but was replaced with the conscience of a perishing body. This inquisition about death seems to be absent in optography’s comments, who appear to be much more fantastic or, on the antipodes, just prosaic. But a similar interest upon the body as a *dispositif*, as perishing matter and as a mechanical device shows us that they are heirs of the romantic and ghostly worries of Poe. This interest about the individual conscience of precarious live and death seems to be coherent, in Poe, with his

[14] “The Premature Burial" (A), *Dollar Newspaper*, July 31, 1844, in Poe 2002, p.96

fascination of the detective novel, which he invented[15]. The two kinds of texts Poe wrote correspond to the two major tendencies of his era: romanticism and scientific positivism. The "the image in the dead man's eye" is, at the same time, at work with the secularization society, in the way that death is no more just a God's affair, but a secular matter, dealing with doctors and… detectives. Edgar Poe's ghosts are just a metaphor of a so prosaic and brief life, as Oscar Wilde, at the end of the century, will characterize in "The Canterville's ghost".

W. Bird, a scientist, was also somewhat divided between the interest in the marvelous but speculative applications of optography to forensic science and the worries with remaining close to a rigorous scientific mind, when he published, on the *Journal of Photography* of 1877, an abstract of Kuhne's experiments with its own comments. Bird tells us:

> "*To fix the photographic image by means of daguerreotype was an almost miraculous fact, and that nature becomes more wonderful than art is an extraordinary experience.*"[16]

The optographic tale was reinvested along the 80's decade, more and more associated with crime investigation. This one was turning to great interest not only for institutions, like Scotland Yard, but to general public. In 1887 Sir Arthur Conan Doyle publishes "A study in scarlet", developing the analytical crime novel Poe had initiated on a *forensic* basis. The urban scene, with its murders[17], its *strangers*, its urban anonymity, were in the center of city anxieties. From the late 60's, the news and articles related to "optography" are always in connection with some crime scene, the newest urban news passion, sometimes quoting Kuhne and Boll's discoveries. They never talk about "optography", but just "Images in dead Eyes", "Murder and Photography", Photography and Crime", "Retinal

[15] In fact, the "The Murders in the Rue Morgue" was his first crime novel, originally published in the *Graham's Magazine* in 1841, during the period he was co-editor.

[16] W.S. Bird, "The Photography of Vision", *The Phot. Journal/Journal of the Phot. Soc.*, New Series, 1.-3, p. 23.5.1879, p. 93

[17] The *New York Times* has, at this time, a daily column entitled "Murders", where they publish lots of little notes about murders in the city.

image" or "Visual Purple". On the other hand, neither Boll nor Kuhne never wrote about forensic applications of "optography" or were they really ahead of an eventual connection with police matters; these scientists seem to have been led to these experiments as an extension of their research of photochemistry phenomena of the interior of the retina, now that they have discovered it with the ophthalmoscope; a new research field, that of the Physiology of vision, had been opened. And the truth is, although the big noise that has been made around the idea of photographing the dead person's eyes for forensic instruction, nobody could ever do anything with it.

The conclusions published in the papers were always very careful and obviously contradictory. There was always *something* very net in the image of the victim about the murder, but finally, that was not *so net* at all, and police couldn't do anything upon it. In one of the numerous notes on this matter, in the *Amateur Photographer* of January 11 of 1895, near the "scientific" turn of the century, a very expanded article on the subject is published, about fabulous facts occurred around a murder:

> "*A startling development was made in the Shearman murder case today. A photograph of the murderer has been discovered. Both of Mrs. Sherman' eyes are believed to hold pictures of the man who murdered her. (…) This morning it was decided to proceed on that theory, and taking Fred Marsh they visited the Shearman farm. Mr. Marsh with his Kodak photographed one eye of Mrs Shearman, and the form a man was found there, a big, burly man, wearing a long overcoat, with the cloth of his trousers badly wrinkled. The face of the man was not obtained. This revelation caused sensation at the farmhouse. Undertaker Partridge was present, and says the photograph of the man's form and clothing on the one eye of Mrs Shearman, which exposed to Mr Marsh's camera was perfectly distinct. It is hoped the other eye will furnish the means of identifying the murderer by giving his face. (…)After the first surprise of the*

startling discovery made by Mr. Marsh was over, he made a most careful examination, which clearly revealed the man's form. He was apparently a big man with a long heavy overcoat unbuttoned, and which reached below the knees. The wrinkles in the trousers could be plainly seen, and one foot was behind the other, with the knee bending as if a stooping posture about to take a step. Dr. Bowers, the Coroner, then made an examination, and says he saw the picture as distinctly as he could have seen a man standing in front of him.E. G. Partridge, Albert Hazeltine, and the Rev. Stoddard who were at the house when the examination was made, were called into the room and examined the eye, each of them verifying the statement as describing the man in similar language."

The article's author comments, at the end of the story, that "this idea is not new, but so far has not certainly been proved", but it questions how "a chemical image so delicate as it must be in the retina remain sufficiently long after death for microscopic examination be possible?"

This text shows us the set of contradictions that circled this theme and allows us to see the phantasmal side of the question. In one-way the image proves, but, on the other, it can't, because the decisive element to the identification, the face, is always blurred, undefined in the retinal image. At the end of this euphoric article we can ask: the three men that confirmed what the photographer and the scientist had stated, what did they really confirmed? In fact, or with a positive value, there is nothing. They confirmed an image that seems to be a projection, but not anything with an indexical referent. And when the journalist questions the real possibility of such a retinal examination, the reader can't store anything reliable on his hands. There is no murder's face, but, also, there is no confidence in the device of representation. So, what does remain?

It seems that what remains is just *the desire* that something could be done about that matter of the camera-eye; it means a deep desire, and a believe, that the observational powers of microscope and photographic camera, tools of the truth,

could be anticipated by the body by its own, even if the retinal image would need the both to come out of the eye. But we cannot range the discourse about self-made images by the eye in a kind of linear opposition between science and ignorance. The euphoric mood comes from the scientific minds, like W. Bird or Gamgee, such as from common people not used with scientific protocols. Even if the first ones never entered through fantasy respecting to facts, and although the comments that they do about such matter keep respecting the scientific language of Boll and Kuhne, they don't give up an association with the spirit of the time about the dream of a body automatism who could allow the making of images by itself and they even dream of inscribing this possibility in the context of the marvelous progresses of XIX century.

On the other hand, the skepticism does not come particularly from scientific minds, but it crosses the ordinary opinion expressed in newspapers, by journalists, anonymous correspondents and so on, that want to disbelieve such theories. When scientific (and positivism) would not allow much more divagations about "images in a dead eye", the theme was not buried instead of. It came to us from another door, where no facts were requested to support it, but just the pure fantasy: the door of the fiction of the end of the century, were eyes and trustful fixed images inscribed on them should meet again. Some recent and works by Andrea Goulet[18] work deeply on the presence of this figure in French fin-de-siècle literature. She shows us how it appears in Jules Verne's novel "The Kip Brothers" (1902), in Villiers de L'Ille St-Adams' "Claire Lenoir" (1867) and in Jules Claretie "L'accusateur" (1897).

[18] Cf. Andrea Goulet, 2001 and 2006; Also Arthur Evans Also Arthur Evans (Arthur Evans "Optograms and fiction", 1993) in a earlier paper, follows the big issue of optography in science fiction until de xx century. If Evans focuses his paper more in the historical outline of the theme and also in its connections with science, Goulet work mainly underlines the connections between this occurrence in literature and notions of contaminations and identity that were drawn by colonial empires. Goulet also does deep research on vison and optical XIX century theories, although her scope

With some different details, it also marks its presence in Rudyard Kipling' "At the End of the Passage" (1896)[19], putting some other problems on evidence: here is not an image of something that comes over the victim from outside (a murderer), but of something that comes from *inside*: a awful vision, that takes the form of a uncanny and frightening figure verisimilar enough to kill a man by a heart attack. We can follow the final dialogue:

– 'Tisn't medical science.'
– 'What?'
– 'Things in a dead man's eye.'
– 'For goodness' sake leave that horror alone!' said Lowndes. 'I've seen a native die of pure fright when a tiger chivied him. I know what killed Hummil.'
– 'The deuce you do! I'm going to try to see.'
And the doctor retreated into the bathroom with a Kodak camera. After a few minutes there was the sound of something being hammered to pieces, and he emerged, very white indeed.
– 'Have you got a picture?' said Mottram. 'What does the thing look like?'
– 'It was impossible, of course. You needn't look, Mottram. I've torn up the films. There was nothing there. It was impossible.'
– 'That,' said Lowndes, very distinctly, watching the shaking hand striving to relight the pipe, 'is a damned lie.'[20]

In all these narratives, popular, scientific or literary, the images found inside the body (in the eye) are a pillar of truth, but we shouldn't mistake this idea with some kind of association between vision and truth. As Jonathan Crary already

[19] R. Kipling, "At the end of the Passage", *via* http://whitewolf.newcastle.edu.au/words/authors/K/KiplingRudyard, 12.1.2007. In this tale, one of the characters, Hummil, dies from an heart attack due to horror visions, like hallucinations, that, at a first step, don't let him sleep. When his friend, Dr. Spurstow, photographs his dead eyes with a Kodak, the reader is informed subtly that he found, developing the image, a horrific vision upon which he doesn't want to talk about.
[20] Rudyard Kipling, *At the end of the passage*, 1895. *Via*: http://whitewolf.newcastle.edu.au/words/authors/K/KiplingRudyard/prose/LifesHandicap/endpassage.html

demonstrated, the modern subject that is being constructed all along the XIX century is far away from transparency and truth. His vision is bodily centered, subjective, illusionary, *ideological* (as Marx, Freud and Nietzsche theorized) [21].

What is at work here is not something like an equation between vision and truth, but between *automatism* and truth, as the image is not an intentional one, but something that has been produced *spontaneously* by the embodied eye. The so-called eye-photograph depends upon a body automatism, a biological device (the visual purple) and not upon a conscious decision.

The all story of optography is somewhat surrounding some Freudian statements that will come out at the end of XIX century. But even before Freud, Charcot (his great master and inspirer) did some experiences about the doubled structure of human mind, with catalepsy patients, and Pierre Janet, a Charcot's disciple, is acknowledged for having invented the concept of *dissociation.* Maybe it is not happenstance that in the same volume of *Nature,* next to the page where Prof. Gamgee, in a scientific report, relates all the experiences about retinal images by Boll and Kuhne, a little note communicates us about Charcot experiences in Paris:

> "*Charcot has demonstrated that it is possible to provoke catalepsy by putting the patient in front of an electrical source of light; and it is possible to make it in just one side of the body, by closing one of the eyes; then, this side will remain in a stare of lethargy or somnambulism.*"[22]

At the same time that these fantasies were at work, studies on psychological automatism were working about automated mechanisms, as the quotation about Charcot supposes. In 1889 Pierre Janet, a Charcot's disciple, such as Freud was

[21] Cf Jonathan Crary, *Techniques of the Observer*, Cam./Mass., The MIT Press, 1991. As Cray points out, as analyzing the symbolic role of the *camera obscura*, "Once vision became located in the empirical immediacy of the observer's body, it belonged to time, to flux, to death. The guarantees of authority, identity, and universality supplied by the *camera obscura* are of another epoch": Crary 1991: 24.

[22] In *Nature*, vol. xix, Nov. 1878-April de 1879, 13. 2. 1879, p. 351

at that time, publishes is major work about *dissociation* and its foundations: *L'Automatisme Psychologique, essai de psychologie Expérimentale sur les formes inférieures de l'activicté humaine*.[23] In this work, the author points out a double nature of the human being, that would explain pathologies like Hysteria, and some cataleptic symptoms. That double nature supposes that we *don't control all of our acts*, some of them being *automated*[24]*.* Later, in Freud and Breuer *Hystery Studies* (1895), we will be lead to the major opposition between the conscious and the unconscious that will be common to normal and pathological beings:

> "*We call conscious representations those we can observe as they live inside us, even if we don't pay so much attention to them" and that are, "at every moment, just a few, and, if there are other thoughts, we must call them unconscious.*"[25]

There were to be a major conflict between the different concepts of unconscious of Janet, Charcot and other psychologists of XIX century and the one Freud will state, because the XIX century concept of automatism does not suggest yet a very *dynamic* differentiation between consciousness and the *unconscious* like the one Freud would state in "A Note on the unconscious in psychoanalysis" in 1911[26]. If in the popular and common sense the idea of optography echoes the epistemological context of Charcot's works, its treatment in literary text joins Freud: in Kipling's novel we are at terms with an image that is formed not of

[23] Paris, Félix Alcan, 1989.
[24] According to Janet, a movement is named *automated* if it presents two characters: 1) it must be spontaneous, at least apparently, not created by an external stimulus; 2) it must be regular, under a rigorous determinism, without caprices or variations. The aim of the idea is to prove that there are *psychological automatisms*, and to show that reason doesn't act all along with our behavior, challenging the western rationalist about the conscience. Cf Janet 1889, p. 3.
[25] S. Freud and Joseph Breuer, (1895), *Études sur l'hystérie*, Paris, Puf, 1989, p. 178. Cf. also S. Freud. "Lo inconsciente", in *Obras Completas*, ed. Biblioteca Nueva, Madrid, 1972, pp. 2061-2082.
[26] For a discussion of this segregation of Freud out from the XIX century psychology, and mainly about the motives of the publication by Freud of this article in the *Proceedings of the Society of Psychical Research* in 1911, an institution very close to those approaches Freud was trying to get out of, see James P. Keeley, "Subliminal Promptings: Psychoanalytic Theory and the Society for Psychical Research"*, American Imago* Volume 58, Number 4, Winter 2001, pp. 767-791

some external stimulus (the crime), but of an internal one: an hallucination, which can be associated with the touchstone of psychoanalysis in its maturity: the dream (or the nightmare) and the dream analysis.

The note about Charcot, that *Nature* publishes so discreetly, talks, through the lines, about the idea of a divided self, and, at the same time, about a *self* which body can do some actions dictated by external forces acting directly on the deeper levels of consciousness. This body, plenty of automatisms, seems to find in *optography* one of its figures, even if it is a very fantastic one. The realism of the camera is now projected over the body and the self as the result of a nature that reason cannot control. The image, kept by the retina, is not the product of a perception-conscience system; it can be a truly image because it is a driven, instinctual image, which comes from a kind of solitary, self-driven eye. The only trustful eye is the one driven by an automated body.

As Ulrich Baer has underlined, photography and psychoanalysis share a same interest on the importance of the detail, the little thing that sometimes we don't see at a first sight[27]. This was central, for instance, in dream interpretation, where the latent contents, hidden behind some uninteresting (apparently) detail, play the main role to understand "the latent content". The detective's eye over the dead eye, which floats separated from its body, seems to underline these *little something*. Hidden under the eyelid, unsuspected until then, the eye reveals the crime, after being prepared, analyzed, scrutinized and photographed. It is from this fragmentation process that comes the possibility of the global sense of everything, as Edgar Poe pointed in "The Purloined Letter"[28].

[27] Ulrich Baer, *Spectral evidence/Phot. And trauma*, The Mit Press, 2002, p. 52

[28] This famous tale shows the importance of the detail that sometimes is just under our nose and we can't see, as the letter, after having been searched by policemen under 'scientific methods', was finally discovered by the hero in evidence, in the middle of the room: "You will remember, perhaps, how desperately the Prefect laughed when I suggested, upon our first interview, that it was just possible this mystery troubled him so much on account of its being *so very self-evident*."(Italic by ours) (Edgar Allan Poe, *The purloined Letter*, 1944, *via* http://www.eapoe.org/works/tales/plttrb.htm.). Jacques Lacan, the father of psychoanalytical structuralism, wrote a paper on it, connecting this idea of the hidden evidence to psychoanalysis interpretation of the significant and its destination on a triangular relationship. Cf J. Lacan, 'La Lettre volée', in *Écrits*, Paris, Seuil, 1966.

In the Freudian theory, the Ego is surrounded by images that are not, in a traditional sense, of his entire "responsibility". Most part of the Ego is unconscious, moved by instinct drives that are somewhere located in a new entity, an entity that throws back the classical opposition between mind and body, working upon a body that is at the same time a mind, and a mind which is always body, within a new concept: the *unconscious*[29]. Even if the Freudian theory was still to wait long to come to light, XIX century psychology was already working, although with the accent in the hypnotism and hysterical scene, in the idea of doubling or multiple personality and from the 70's, as we have already underlined.

The body-automatic images supposed within this "optographic" tale are indeed a very complex matter. They are contemporary of other ideas (and practice) on automatism: telepathy, hypnotic control (mesmerism), automatic writing, and spiritualism. They bring with them an insight of the main theories – which work against the evidence of a conscience and an idealist *weltanschauung* of the subject – that were to be constructed all along the XIX century about Man – that very recent invention, as Foucault called it.

[29] In his article "The Uncouncious" of 1915, Freud wrote: "There are psychic acts of many different kind which, meanwhile, coincide in the fact that they are unconscious. The unconscious understands, on one side, the latent and temporarily unconscious acts that, besides that, don't differentiate themselves from the conscious ones and, on the other side, the processes like the repressed ones that if they come to the conscience would present remarkable differences with the first ones". In Sigmund Freud, *Obras Completas*, ed. Biblioteca Nueva, Madrid, 1972, p. 2064.

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