Dagmar Keultjes

Let's Talk about the Weather! Negative Manipulation Techniques Used to Produce Atmosphere in Landscape Photography 1850–1900

Lecture on November 22, 2013 on the occasion of the symposium "Inspirations – Interactions: Pictorialism Reconsidered"

Thank you for the invitation and for making pictures from the Museum of Photography's Juhl Collection available, enabling me to include some landscape photographs in the presentation.

Although the emphasis of the Juhl collection is on portrait photography, there are 32 landscape photographs with sky. Striking is that only two of these photographs don't depict clouds, from which may already be understood that the representation of clouds is of particular interest to photography.

A. Böhmer (photographer); Rudolph Dührkoop (printer), *Sheep at Pasture*, Platinum print, 1897, 15.6 x 21.4 cm, Ernst Juhl Collection, Kunstbibliothek Staatliche Museen zu Berlin - Preußischer Kulturbesitz, Id. Nr. 1910,150

William Boyd Post, *Bermuda Clouds*, Platinum print, 1893-1903, 13.7 x 21.3 cm, Ernst Juhl Collection, Kunstbibliothek Staatliche Museen zu Berlin – Preußischer Kulturbesitz, Id.Nr. 1915,258

The two photographs from the collection shown here originated in the same period: the *Sheep at Pasture* in 1897, the *Bermuda Clouds* between 1893–1903. The first image shows a pastoral scene: On the left of the image, three sheep graze in front of a small shrub. In front of them a small path divides the image diagonally into two halves. The horizon line is high, set approximately on the line of the golden ratio. The focal depth decreases towards the horizon. The sky is completely cloudless, although it becomes gradually lighter towards the horizon, as if a light source were concealed there, which imparts depth to the firmament.

The second image shows a seascape. Two-thirds of the image surface is made up of sky. It was shot with a wide-angle lens from a great distance. The two ships appear as narrow stripes parallel to the line of the horizon. The surface of the water is lightly disturbed, but waveless, becoming lighter towards the horizon. On the left side of the image a narrow gray strip of land can be seen. Over the sea tower thick bulging cloud formations, the Bermuda clouds of the title.

While the content of the images couldn't be more different, the photographic technique used to make the positive prints is, in both cases, platinum printing.[1] These prints had a broad spectrum of gray tones, which ranged from bright white to deep black. The precious metal platinum would often be mixed with palladium, which sometimes gave a warmer tone, as can be seen with the sheep at pasture. By examining the surface structure of the photographs we can identify the printing technique, but what we can't discern is: What did the respective originals, the negatives look like? We rarely have the opportunity to look at these next to the prints and compare them.[2] Perhaps the sky and other objects were retouched, or are the prints exact copies of the original exposures?

The following lecture will discuss various techniques of negative retouching in sky representations in the period 1850–1900, applied on different bases like, for example, paper or glass but also loose gelatin.[3] Apart from the empirical materials analysis, the development of various techniques, and the resultant discussion about the "rights and wrongs" of negative retouching, can be followed in the photography trade journals and manuals from that time in which retouching negatives was repeatedly discussed. I would like to present some aspects of this. Furthermore, besides the two pictures seen here (which we will return to later), further examples from the Juhl collection will serve as material for a "picture puzzle." The question is whether, based on various indicators, the viewer can distinguish the hidden negative retouching in the positive?

"The most difficult subject to take in the career of a landscape photographer is heaven. However, in a tableau where the terrestrial objects are reproduced with startling truth, a sky of fantasy will always be a monstrous object."[4]

---

[1] Platinum prints are made on uncoated paper. The emulsion with platinum (often mixed with palladium) is dispersed through the top layer of the paper. Prints have a wide range of mid-tones, from shades of pale gray to intense black. Palladium tones are warmer than those of Platinum prints. See: BERTRAND LAVÉDRINE, *Photographs of the past. Process and Preservation,* Los Angeles (English translation from French original 2007), 2009, p. 156-164.

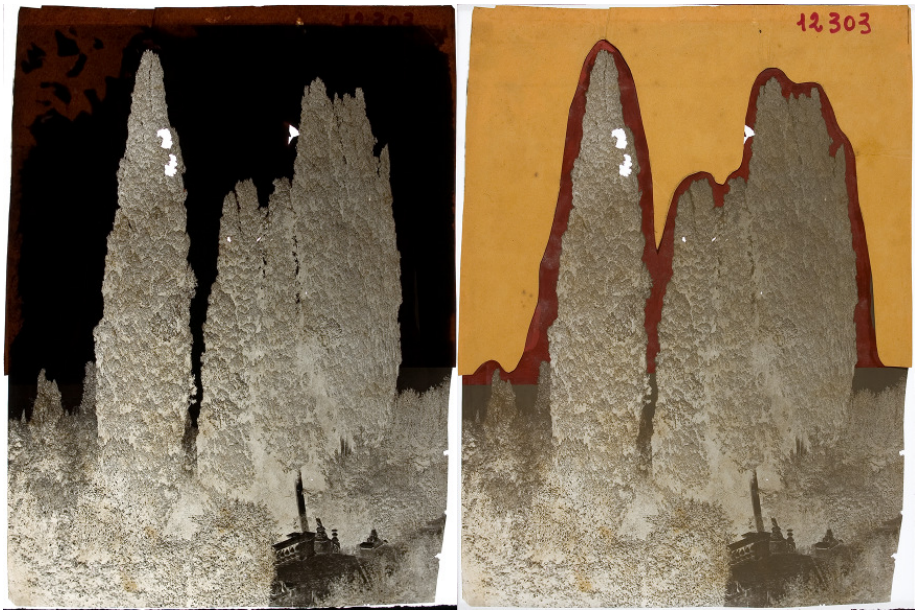
[2] Around 1900 a prominent method was glass plate negatives with a light-sensitive silver-bromide gelatin layer onto which the camera exposed and which were finally used in the laboratory to make photographic prints.

[3] These negatives were obtained by applying a layer of gelatin with cotton dissolved in acetic acid to the glassplate. Once that layer dried, a layer of emulsion would be applied and then incised along the edges and freed from the plate. See: SILVIA BERSELLI, *Il restauro del Fondo Tuminello: problemi tecnici e conservativi dei primi negativi fotografici,* in: SERENA ROMANO (Ed.), *L'immagine di Roma, 1848-1895 : la città, l'archeologia, il medioevo nei calotipi del fondo Tuminello* : catalogo della collezione di Piero Becchetti, Neapel 1994, p. 33-45.

[4] *«Ce qu'il existe de plus difficile a rendre, dans la carriere des paysagistes, c'est le ciel. Or, dans un tableau ou les objets terrestres sont reproduits avec une verité surprenants, un ciel de fantaisie sera toujours un objet monstrueux.»* FRANCIS WEY, *Album de la Societe heliographique*, in: La Lumière, 10 August 1851, p. 107.

With these words in the periodical *La Lumière,* in 1851, the year the *Société héliographique* was established, French writer Francis Wey (1812–1882) formulated the great challenge facing landscape photography which, in the early years of photography, had already fueled debates in photographic circles: How should the sky be represented? Its representation posed significant problems, as, in the beginning, photography did not have the means to capture the sky with its cloud formations. Due to the long exposure times and the sensitivity of the materials to blue tones, the blue sky was overexposed (solarization).[5] As a result it appeared as a dark, unclean surface on the positive print unless treated in the negative.[6] The easiest solution was to mask off the sky by covering the area with black paint or using paper.

I want to show you, here, a negative made from gelatin, with direct illumination and with backlighting. It originates from the Roman photo pioneer Giacomo Caneva (1813–1865) and can be dated to around 1853.

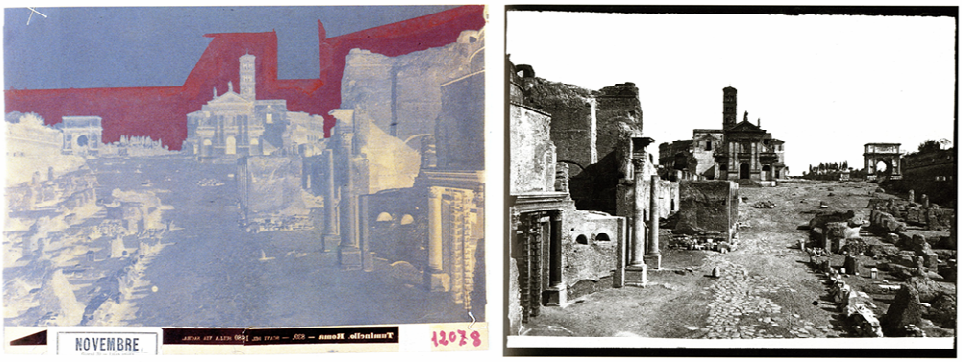


Giacomo Caneva, *Trees in the Gardens of Villa d'Este,* waxed paper negative with direct illumination and with backlighting, ca. 1853, 25 x 19 cm, Ludovico Tuminello Collection, Inv. 424, MAFOS, Rom

High up in the sky, one can see a group of tall cypress trees in the garden of the Villa d'Este in Tivoli and a small bridge with a balustrade in the lower right of the image. The photographer framed the cypress trees with a thickly applied red varnish (which under direct illumination appears black). The color covers almost the entire sky, although it thins towards the corners, as presumably the use of a paper template was planned from the beginning. This is still preserved in the negative. If placed over the sky (as seen here in the slide on the second image), an empty space can be seen between the contour of the cypress trees and the template. It is clear that the applied paint was used for a more detailed framing while the paper was used to cover the larger surface more easily. This masking technique resulted in the sky being printed as a pure white surface in the positive print. The architectural landscape appeared to be freestanding in front of this neutral white background and separated from any sense of atmosphere or time of day.

[5] ULRICH POHLMANN, *Wolken und Wellen*, in: ULRICH POHLMANN, J. PRINZ VON HOHENZOLLERN (Ed.), *Eine neue Kunst? Eine andere Natur! Fotografie und Malerei im 19. Jahrhundert,* München 2004, p. 171-173.
[6] Helmut Gernsheim pointed to this in his history of photography published in 1983. See: HELMUT GERNSHEIM, *Geschichte der Photographie, die ersten hundert Jahre,* Frankfurt am Main, 1983, p. 318.

This can be seen well in a further example from the Roman collection: on the left the retouched negative, backlit this time, on the right the positive as a modern print.



Retouched negative and positive, Tuminello*, Foro Romano*, circa 1880, waxed paper negative, 20.8 x 26.6 cm, Ludovico Tuminello Collection

Masking with color and paper stencils was used on the negatives from the first years of photography to clean the otherwise impure-looking sky. The use of retouching was frowned upon, as it contradicted photography's aspiration to be a purely chemical, and therefore neutral recording medium, which qualified it as an ideal documentation tool for the sciences.[7] William Henry Fox Talbot (1800–1877) in England,[8] alongside the Frenchman Hippolyte Bayard (1807–1887), one of the inventors of paper negatives,[9] emphasized in his book published in 1844 and illustrated with photographs, *Pencil of Nature*, that the images were created only through the exposure to light, as "sun-pictures themselves" without any manual intervention.[10] Although one can quickly establish that in photographic practice, however, the opposite was often the case, which quickly caused criticism. In contrast to retouching positives, retouching negatives was a "hidden" intervention, which couldn't be proven from the prints, so its use was often negated by photographers. The French picture historian, André Gunthert, recounts how in an exhibition in the 1860s providing the caption "no retouching" served as an attempt to increase the value of a photograph.[11] Whether Talbot himself used retouching on his exposures is questionable.[12] He seems to have been above masking out

[7] See the excerpt from the speech of politician and physicist Arago (1786–1853) before the Parisian Chamber of Deputies on July 3, 1839: DOMINIQUE FRANCOIS ARAGO, *Bericht über den Daguerreotyp*, in: WOLFGANG KEMP, *Theorie der Fotografie I 1839-1912*, Munich 1980, p. 51-56. Also: PETER GEIMER, *Theorien der Fotografie*, Hamburg 2009, p. 17f; HERTA WOLF, *Das Denkmälerarchiv Fotografie*, in: HERTA WOLF (Ed.), *Paradigma Fotografie – Fotokritik am Ende des fotografischen Zeitalters*, Frankfurt am Main 2002, p. 349-376, here: p. 364; BERND STIEGLER, *Philologie des Auges: die photographische Entdeckung der Welt im 19. Jahrhundert*, Munich 2001, p. 22-55; LORRAINE DASTON, PETER GALISON, *Objektivität*, Frankfurt am Main 2007, p.130-131.

[8] The positive-negative process on paper was developed by William Henry Fox Talbot (1800–1877) and patented under the name calotype (*kalos* = Greek., useful, beautiful) in 1841. See: MICHEL FRIZOT, *1839-1840 Fotografische Entdeckungen*, in: MICHEL FRIZOT (Ed.), *Neue Geschichte der Fotografie*, Köln 1998, p. 59-62.

[9] Although Fox Talbot is often cited as the actual inventor, Bayard had developed his own paper negatives before then in 1839, which he showed to physicist César Desprets. He became known for his process of making direct positives on paper. See: GEOFFREY BATCHEN, *Burning with desire: The conception of Photography*, Massachusetts 1997, p. 157.

[10] *"The plates of the present work are impressed by the agency of light alone, without any aid whatever from the artist's pencil. They are sun-pictures themselves, and not, as some persons have imagined, engravings in imitation."* Quoted from the introduction by Beaumont Newhall in: William Henry Fox Talbot, *The pencil of nature*, Reprint of the edition London 1844, New York, 1969, p. 5.

[11] André Gunthert, «*"Sans retouche,"* Études photographiques, 22 / September 2008, [Online] placed online September 18, 2008, URL: http://etudesphotographiques.revues.org/index1004.html, p. 4.

[12] The American photo historian Larry J. Schaaf refers to a note in which Talbot asked his assistant Nicolaas Henneman (1813–1898), to clear the image II *Boulevards of Paris* of his *Pencil of Nature* of marks, which had

the sky in images. In a letter to Talbot from the year 1847, the British painter and photographer, Calvert Richard Jones (1804–1877), recounts that he himself masks the sky in his photographs.[13]

Photographic material had developed rapidly: the invention of the dry waxed paper process by the French photographer Gustave Le Gray (1820–1882) and the wet collodion process on glass plates by the British photographer Frederick Scott Archer (1813–1857) provided material in 1851 with a higher sensitivity and less exposure time. This facilitated the depiction of cloud formations. Nevertheless, due to the practicalities of photographing outside, lighter, but less light-sensitive paper negatives were used.

In the year 1851 the French committee *Mission Héliographique* initiated a photo campaign to record historical monuments in which the photographers were confronted with the cloud problem. It is remarkable that four of the five photographers, one of them being Le Gray, kept themselves strictly to the prescribed "documentary guidelines" and didn't pay much attention to the sky. They depicted the sky as white.[14] Of the photographers, solely Edouard Baldus was dissatisfied with the white sky. He searched for a new solution and drew in the clouds afterwards with ink, such as on the gelatin paper negative shown here, *Pont romain, Vaison-la-Romaine, Vaucluse*, dated 1851. The sky here has been retouched with black ink, in a circular, gradually decreasing application of paint to capture a cloud-like effect.[15] Other photographers also took this route, as we will see in the following images.

Edouard Baldus, *Pont-romain-Vaison-la-Romaine, Vaucluse*, 26.2 x 35.5 cm, 1851, Musée d'Orsay, Paris, INV 7599
http://www.musee-orsay.fr/it/collezioni/catalogo-delle-opere/notice.html?no_cache=1&zsz=5&lnum=&nnumid=36901

Even if Le Gray didn't use cloud retouching on the photographs made for the committee, he combined paper and/or glass negatives in other images, to bring the cloud sky into the exposures. The principle of this combination printing was probably first used by French photographer Hippolyte Bayard, who used cloud stencils in 1852.[16] However, Le Gray used cloud negatives specifically created for the purpose.

---

fallen on the negative. LARRY J. SCHAAF, *Science, Art and Talent – Henry Talbot and Hill & Adamson*, in: *History of Photography*, Volume 27, Issue 1, Spring 2003, p. 13-24, here the note 8 on p. 23

[13] *Calvert Richard Jones, letter to Henry Fox Talbot*, March 22, 1847, British Library, London, Fox Talbot Collection, 5912. Transcribed by Larry J. Schaaf, found online under: *The Correspondence of William Henry Fox Talbot*: http://foxtalbot.dmu.ac.uk/letters/transcriptDocnum.php?docnum=5912. Compare with this footnote 2 in: MIA FINEMAN, *Fakin it. Manipulated Photography before Photoshop*, New York 2012, p. 258.

[14] The guidelines drawn up by Mérimée and Léon Vaudoyer are set out by Nilsen in: MICHELINE NILSEN, *Architecture in nineteenth-century photographs,* Ashgate 2011, p. 36; See also: JAMES S: ACKERMAN, *Origins of Architectural Photography,* study centre mellon lectures, December 4, 2001: http://www.cca.qc.ca/en/study-centre/58-james-ackerman-on-the-origins-of-architectural-photography.

[15] For the preparation of negatives Baldus used an English paper, coated with gelatin and resin. The exposure was somewhat slow, but it was also more stable and reacted better in various baths, whereby it was favored for open-air photography of architecture and landscape. Mondenard indicates this in the catalogue: ANNE DE MONDENARD, *La mission héliographique*, Paris 2002, p. 226-296.

[16] This can be read in the manual: Lake Price, *A Manual of Photographic Manipulation*, London 1868 (Reprint 1973). Ulrich Pohlmann references this in: POHLMANN, 2004, p. 171-187.

This can be shown particularly well on one of Le Gray's cloud exposures on collodium glass plate, which he inserted into several landscapes.

Gustave Le Gray, *Cloud Study*, albumen print from two collodion-on-glass negatives, 32.1 x 41.8 cm;
Gustave Le Gray, *Large Wave*, albumen print from two collodion-on-glass negatives, 32.3 x 41.2 cm;
Gustave Le Gray, *Seascape with a Ship Leaving Port*, albumen print from two collodion-on-glass negatives, 33.9 x 44.7 cm
See: SYLVIE AUBENAS (Ed.), *Gustave Le Gray – 1820-1884,* Paul Getty Museum, Los Angeles, 2002, catalog 116, 138, 126.

Cloud formations like this, which stood out in contrast to the background, could be photographed particularly well with back lighting. Due to the resultant underexposure, objects beneath the sky disappeared in the shadows.

Reviewing the landscape images of the Juhl Collection, backlit images of clouds are particularly common. As an example, I will show the image of Böhmer's *Wenn der Tag sich neigt* (When Day Declines), a carbon print dating from around 1900. The lower part of the image is lightened through the reflections on the water, whereas the wooden pier appears almost black and virtually disappears in the shadows. As the reflections and position of the sun correspond to one another, in this case, the print was produced from a single negative without combination printing.

A. Böhmer, *When Day Declines*, carbon print, ca. 1900, 15.8 x 20 cm, Ernst Juhl Collection, Kunstbibliothek Staatliche Museen zu Berlin - Preußischer Kulturbesitz, Ident-Nr. 1915,327.

The backlit photograph was mentioned by Francis Wey in his previously quoted 1851 issue of *La Lumière* in an article on the Parisian photographer's album. Though he is against the subsequent addition of a fantasy sky by hand, which through the mix of painting and photography produces a hybrid (image-hybrid) in which the sky appears monstrous and contradicts the detailed naturalistic reproduction of the other objects, he believes that the sky can be given the desired atmospheric appearance through use of the appropriate photographic technique. As an example, he quotes the French painter and photographer Charles Nègre (1820–1880), who achieved this with three shots of a day coming to a close in the twilight. He draws particular attention to one of the photographs titled *Le Soir*: Above the silhouettes of the trees, which surround a farm in shadows, a perfect sky ("*un ciel complet*") can be seen, comparable in its harmony to the painted skies of panel paintings.[17] In his photography manual, published in 1891, the Berliner photo chemist Hermann Wilhelm Vogel (1834–1898) also describes backlit photographs as a method for achieving "painterly" effects.[18]

These painterly effects were not solely achieved through exposure technique and combination printing. The print itself could still be manipulated afterwards. Different methods for this were quickly developed and debated in the photographic associations that sprang up from the 1850s onward. The debate was also taken up in photographic literature, as I intend to demonstrate with the following examples.

The English miniature painter and etcher William John Newton (1785–1869) can be seen as an unconditional supporter of retouching. In contrast to Francis Wey he saw retouching as a necessity: "as wonderful as the abilities of the camera are, we have not yet reached the perfection, which makes a faithful rendering of colour and light and shadow possible." Newton was one of the chairmen of the *Photographic Society of London*, where, in the year of its foundation, 1853, he gave a lecture on the subject "Photography as seen by the artist,"

[17] *„L'un des trois, intitulé le Soir, nous présente un ciel complet, sur lequel se dessinent en silhouette des arbres entourant le pignon d'une ferme entièrement submergée par les ombres […]"* WEY, 1851, p. 107.
[18] HERMANN WILHELM VOGEL, *Photographische Kunstlehre*, Berlin 1891, p. 186.

followed by a debate.[19] In his talk, he defends retouching, particularly as a method for producing artistic photographs. He suggests chemical retouching, using "potassium iodide or cyanide" to draw in the shape of the clouds on the negatives by hand, which then become darker than the base color of the paper, "or when the negative is transparent, one can use ink or other dark colours to create the effect of light clouds."[20]

Florentine photographer Alinari applied this to collodion glass plates, which can be dated between 1870 and 1875. Here, above the Palazzo Pitti, clouds were drawn in with graphite powder, as can be seen particularly well on the negative in the ray of light.

Fratelli Alinari, *Palazzo Pitti*, collodion on glass negative, ca. 1870-1875, 21 x 27 cm; © Archivi Alinari, Florence, Negativ-Nr. 2900.

The journal discusses not only retouching in the laboratory to avoid a white sky but also recording techniques. In the *Photographic Notes* from 1858 a reader's letter is published, "On taking clouds with landscapes."[21] The author criticizes the "cold, dull and unartistic" impression of many landscape photographs, "because they lack those beautiful representations of clouds." He describes subsequently an exposure trick to photograph clouds together with the landscape: "To photograph clouds with the landscape, it is of course only necessary to 'screen' the sky, until the last second of the 'exposure' for the landscape, then lift up the screen, so as to catch the clouds instantaneously and promptly close the lens. […]"

But targeted exposure techniques did not always seem to be sufficient, particularly if the photographer had a specific artistic aim for the exposure. *Photographische Mitteilungen* (Photographic notifications) 1866, edited by Vogel, stated:

> Sometimes the photographer's plate contains natural clouds, particularly in weak sunlight, with not too long exposure and a lens with low-light sensitivity. However, the natural clouds don't necessarily create a pleasant effect, and it

[19] This was printed in the Journal of the Photographic Society of London, 1, 1853–54, p. 6, 74-76, abridged. Taken from: WOLFGANG KEMP, *Theorie der Fotografie* I, 1839-1912, p. 277.
[20] WILLIAM JOHN NEWTON, *Fotografie in künstlerischer Hinsicht betrachtet*, in: ibid, p. 88-96.
[21] *"Many photographic pictures have a very cold, somber and unartistic appearance, because they lack those beautiful representations of clouds, which add so much to good engravings; and this is especially noticeable in those landscapes which have a very distant, or a level horizon."*
On taking clouds with landscapes (letter to the editor of Photographic Notes by John Rayner Hovell), Correspondence, THOMAS SUTTON (Ed.), Photographic Notes, February 15, 1858, Journal of the Birmingham Photographic Society, Voll III, Jersey 1858, p. 55f.

> is not unusual for the photographer to cover them up, because he doesn't like them or because the sky is blotchy.[22]

For these reasons photographers recommended compiling a series of cloud negatives in order to have a fitting negative ready that could be copied into a pre-whitened sky. English photographer Francis Bedford (1816–1894), described this in his article "About landscape negatives and some instructions on how to improve them," published in the *Photographische Mitteilungen* in 1869.[23] Using combination printing these cloud negatives could be copied into a landscape negative, as previously described, although, according to Bedford, a calm, inconspicuous sky was preferable to any other. Additionally, one should have a large number of different sky negatives in stock, so that one doesn't have to use the same sky too often. The most important aspect of these manipulations in the laboratory was for the photographer not to expose "the artificial nature of his tools."[24] The denial of intervention was made to preserve the aura of the alleged neutrality of photography. This was soon followed by a discussion about the artistic value of photography and the role of the photographer as an artist, but we cannot discuss this debate here.

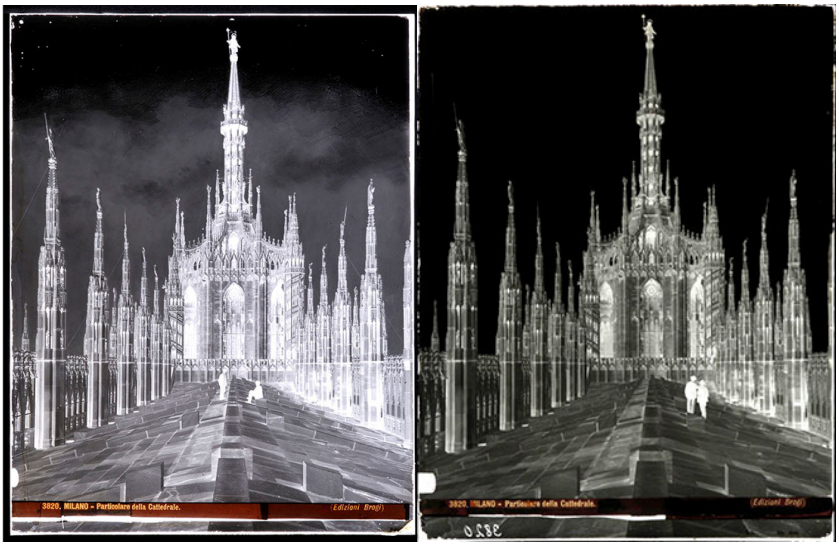
Besides copying in the cloud negative, the sky could also (as already seen on the view of the Palazzo Pitti) be sketched in later by hand, "in that one sticks a even layer of pure, thin tracing paper on the back of the plate with rubber and, using ink or lamp black, draws the sky on it."[25]

In 1866 Vogel observed that an artificial sky might sometimes be more fitting than a natural one. To illustrate his point during a meeting of the photographic society in Berlin he presented the members various prints with both copied-in skies and hand-drawn ones. According to the minutes of the meeting, the natural clouds from the combination printing were considered ugly by the majority of those present. "They were all astonished," Vogel said, "when I pointed out to them that these ugly clouds are the natural ones."[26]

However, this procedure was sharply criticized by many photographers, since, according to their opinion, it produced the photographs Francis Wey had already described in 1851 as "hybrid-images" due to their mixing of two techniques, painting and photography. Among these constructed hybrids rejected by Wey and other colleagues of his is one of the two silver bromide gelatin plates of Milan cathedral from around 1890. As already seen on the view of the Palazzo Pitti, the clouds here were also drawn on the negative with graphite powder. In addition, an almost identical exposure was produced with a white sky, to which the photographer Brogi gave the same negative number. So the potential purchaser of the photographs could choose between a less picturesque view with a pure white sky and a more atmospheric shot with clouds in the firmament.

---

[22] HERMANN WILHELM VOGEL (Ed.), *Ueber Landschaftsphotographie*, Photographische Mitteilungen, 4th year, Berlin 1866, p. 205.
[23] FRANCIS BEDFORD, *About landscape negatives and some instructions how to improve them*, in: Photographische Mitteilungen, 5th year, 1869, p. 94.
[24] Ibid.
[25] BEDFORD, 1869, p. 92.
[26] VOGEL (Ed.), 1866, p. 204.



Brogi, *Milan Cathedral*, brom-gelatin-glass negatives, 21 x 27 cm
© Archivi Alinari, Florence, Negativ-Nr. 3820

But even once chemistry and technology enabled the capturing of clouds, retouching or manipulation of the exposure through combination techniques remained.

One rarely finds a fitting sky over the landscape, Vogel wrote in his aforementioned 1866 article.[27] Even in a cloudless sky, it should be considered that the blue fades towards the horizon. According to Vogel, some photographers, "thinking artists" like Francis Bedford, would therefore gradate the sky when copying "so that it would appear darker at the top and become gradually lighter towards the horizon."[28] As a further example, Vogel cites the work of photographer Philipp Remelé (1844–1883), who used cardboard pulled slowly over the print during exposure to achieve this. Photographer Böhmer presumably used a comparable method in the photograph shown at the beginning, *Sheep at Pasture*. If we look at the photograph more closely, we see that the sky becomes lighter towards the horizon.

A. Böhmer (photographer); Rudolph Dührkoop (printer), *Sheep at Pasture*, platinum print, 1897, 15.6 x 21.4 cm, Ernst Juhl Collection, Kunstbibliothek Staatliche Museen zu Berlin - Preußischer Kulturbesitz,
Id. Nr. 1910,150

[27] Ibid., p. 206.
[28] Ibid.

H.P. Robinson, *Sheep in a Storm,*
Platinum print, 1894, 47.9 x 36.4 cm,
Ernst Juhl Collection,
Kunstbibliothek Staatliche Museen zu Berlin
- Preußischer Kulturbesitz,
Id. Nr. 1915,251.

In contrast to Böhmer's sheep, English photographer Henry Peach Robinson's (1830–1901) image on platinum print dated 1894, *Sheep in a Storm,* appears almost dramatic. The cloudy sky takes up two-thirds of the image. In the case of Robinson, we can assume the use of combination printing. The sheep appear to have been shot in radiant sunshine, whereas the sky is bleak and clouded. The sheep also provide another clue: none of the sheep are unclear, therefore the exposure time must have been short, which would not have been possible in weak sunlight. The stripes on the horizon line, indicating rain, could have also served to cover up contour lines to make the combination printing of the negative invisible to the viewer.

Robinson's darkroom work is hardly surprising, as he was an early supporter of manipulation to achieve artistic effects. He published eleven books on art photography. His publication *Pictorial Effect in Photography* appeared in 1869 and was reprinted four times before 1893. It appeared in German translation under the title *Über den malerischen Effekt in der Fotografie*, published between 1869–1870 in the *Photographische Mitteilungen* as a series of articles.[29] The text is, in form, comparable to a traditional art treatise in that Robinson always tried to apply the principles of classical genre-image composition to photography. His images were staged to the smallest detail.[30]

In 1901 he wrote a handbook titled *Art Photography*, in which he summarized anew what he considered the essential principles of art photography:

> There was a time when it was necessary to apologise for, or to argue the legitimacy of, adding a sky to a landscape from a seperate negative. This was in the bad old times when it was considered fraudulent to improve your picture in any way; when the fine old-crusted purists would prefer to have a photographed face peppered over with black spots caused by freckles almost

[29] See: HERTA WOLF, *Objekt objektiv: Zu den technologischen Implikationen von Fotografie,* in: *Digitale Bildverarbeitung, eine Erweiterung oder radikale Veränderung der Fotografie?* Documentation of the symposium on November 12-13, 2004 in the Museum Folkwang, Essen, Stuttgart 2005, p. 18-28; here: p. 21.
[30] From: FINEMAN, 2012, p. 77-78.

> invisible in nature, or a blank white sky also untrue to fact, rather than have the sacred virginity of the negative tampered with. We know better now. So that the modesty of nature is not overstepped (which however, happens daily, more is the pity, by some retouchers).[31]

It is clear that Robinson differentiates between artistically motivated retouching by hand and industrial laboratory work done by hired retouchers.

Let us now return to the *Bermuda Clouds*, which I opened with.

William Boyd Post, *Bermuda Clouds*, platinum print, 1893-1903, 13.7 x 21.3 cm, Ernst Juhl Collection, Kunstbibliothek Staatliche Museen zu Berlin – Preußischer Kulturbesitz, Id.Nr. 1915,258

Again, I suspect combination printing. As in Robinson's stormy image, both the sky and the sea are perfectly lit. Another thing becomes apparent upon closer observation: there is a slim dark line between the horizon and the sky, as if the combining of the negatives didn't work quite perfectly.

The title *Bermuda Clouds* also suggests an interest in creating a special classification for the clouds.[32] The image can therefore also be understood as a sign of the heightened interest in meteorology in the nineteenth century when it was established itself as a science and photography was an important tool for recording clouds for the creation of cloud atlases.[33] It is, therefore, hardly surprising that a report on the use of clouds in photography can also be found in a meteorological journal 1895. It recommends the use of yellow filters to achieve a more contrast-rich image of clouds when not working at sunset or with backlight: "The successful photographing of clouds is so entirely different from the ordinary run of photographic works, that very few photographers succeed in producing even passable results- except so far as sunset (sometimes called moonlight) effects are concerned […]."[34] Although retouching was generally frowned upon for an image intended for scientific use, the images produced for the cloud atlases were adjusted. German photo historian Herta Wolf

[31] HENRY PEACH ROBINSON, *Art photography*, London 1901, p. 33.
[32] On the history of the nomenclature of clouds see: HERTA WOLF, *Babylonisches Formengewirr: Das Aufzeichnen von Wolken,* In: SVEN SPIEKER (Ed.), *Bürokratische Leidenschaften*, Berlin 2004, p. 196-223.
[33] Jeniffer Tucker refers to the close collaboration between artists and photographers and meteorology: *"From the 1850's through 1890, meteorologists wrestled with how to represent the weather in drawings, watercolors and photographs. In some cases, they explicitly compared their productions with those of artists and, in so doing, redrew the disciplinary boundaries of art and science."* JENNIFER TUCKER, *Nature Exposed Photography as Eyewitness in Victorian Science,* Baltimore 2005, p. 145.
[34] BIRT ACRES, *Some hints on photographing clouds*, quarterly Journal of the Royal Meteorological Society, Volume 21, Issue 95, July 1895, p. 161.

encountered this while examining the cloud atlas produced by the international cloud committee in 1896.[35] The retouching was not, in this case, in order to add clouds as a background but rather to guide the gaze of the viewer towards the image of the clouds and to provide landmarks, such as copying a tree into the image.[36]

In conclusion:

In comparison to the images with whited-out sky, which I came across while looking through the photographs of the collection of the *Mission Héliographique* at the Musée d'Orsay or the Tuminello Collection in Rome, in the Juhl Collection's landscape photographs, images with sky in which clouds were recorded predominate. These could be produced most easily though backlit photographs. Combination printing cannot be discerned in all of the images. However, the examples I have shown will have given an impression of the technique. Like in the case of Robinson it is more difficult to prove from the positive whether in the negative the clouds or the rain has been drawn in by hand.

It seems to me that it was important to use the sky to create atmosphere in the image. Unlike in meteorology, it was not about documenting the atmosphere but about creating it.

But why was the sky so important? Hermann Wilhelm Vogel provides us with one answer through his particular position. He writes, the sky reflects the "soul of the landscape" and shows its character. Therefore it is comparative in importance to the "eyes in portraiture."[37]

Dagmar Keultjes studied art history, archaeology, and art education in Gießen, Kassel, and Bologna. She holds a research assistant position at the art history department's Photothek in Florence and is currently working on her dissertation, which will address and contextualize the practices of photographic retouching from 1839 to 1900. Among her research interests are the history of photography and science as well as the identification and preventive conservation of photographs.

[35] Internationaler Wolken-Atlas, Ed. On behalf of the international meterology commitee, H. Hildebrandsson, A. Riggenbach, L. Teisserenc de Bort, Mitglieder der Wolkenkommission, Paris 1896 In: WOLF, 2004, p. 196-223.
[36] Wolf consulted the photographic legacy of Albert Riggenbachs, one of the collaborators on the atlas, and discovered eight images for reproduction which had been extensively manipulated.
HERTA WOLF, *Wolken, Spiegel und Uhren, Eine Lektüre meteorologischer Fotografien,* in: HUBERTUS VON AMELUXEN (Ed.), Fotogeschichte, 13, Volume 48, Marburg 1993, p. 3-19, here: p. 10.
[37] VOGEL, 1866, p. 205.