Editorial

This special issue on **Materiality/Immateriality in Photography** is devoted to the specific characteristics of the substantiality and immateriality of the photographic image or of what we see in that image. Since the introduction of this technical-industrial art form – generally dated with Joseph Nicéphore Niépce's *View from the Window at Le Gras* from about 1826 – images, created for a wide variety of purposes and intentions, have found their place in time. Both the advances made in the development of the medium and the transition from the analogue to digital image have not changed the ontology of the photographic image in connection with its "materiality".

This complex field of tension between the generation, visualisation and reception of the photographic image system is the subject that is investigated in this publication. The individual contributions provide a wide range of explanatory models, visualisation techniques and cognitive processes ranging chronologically and thematically from the (historical) significance of photographs for the transfer of information of social autonomy to questions on immateriality as a new visual paradigm of the digital. Fundamental consensus was reached on the basis of the material substratum of the image that presupposes the immaterial component as an integral element of every photographic or painted picture.

The consequences the digital turn will bring about for the material concept in the photographic image system, and how the specific structures, mechanisms and intentions of materiality-immateriality will articulate photography in the future, were major topics at the congress. Internet, virtual reality and social platforms such as Facebook, Twitter and Flickr have fundamentally changed all forms of spoken, written and sound and visual communications systems in recent years and point the way ahead to the future. The authors have investigated the role materiality and/or immateriality or virtuality will assume in this paradigm shift in the areas of technical production, media science and socio-specific contexts and mechanisms.

This special issue is the result of the one-day congress of the same name held on 24 November 2012 in Vienna that was conceived and organised by the ESHPh in cooperation with the MUSA – Museum Startgalerie Artothek within the framework of *eyes on – Month of Photography* 2012. This number unites all of the presentations given at the congress with the exception of Christoph Schaden's, which was published on pp. 68–77 of *PhotoResearcher* no. 17/2012. In their essays, the authors take the results of the intense discussions that came about during the congress, which was enthusiastically received by the more than 250 attendees, into account. This fact also had significant influence on the structure of the highly diverse contributions in this journal: These include essays that can be considered as new versions of the topic of the author's presentation, as well as texts for which the authors have chosen the form of a résumé or in which they concentrate on brief statements dealing with the single key point of their lecture that they consider especially pertinent for further discussion.

In this respect, this volume can only be described as a conference proceedings in the widest sense of the term. The order of the lectures, as well as the assignment of the chairs during the congress, is disregarded in this volume but both can still be consulted on our website www.donau-uni.ac.at/ESHPh under "conference programme". The aim of the new sequence was to guarantee the clarity of the links between content and relationships.

Ulla Fischer-Westhauser, Uwe Schögl Vienna, April 2013

Reflections on Materiality in Photographic Production – Looking Back at a Discourse

Peter Weiermair

Organising a round table with artists at the start of a conference dealing with the phenomenon of materiality and immateriality in photography is an admirable gesture. And one that is well founded seeing that the aesthetic strategies of artists - and here I am speaking of contemporary ones - play a not insignificant role in the critical examination reflecting on the medium. In this conference, photography is not only understood as being an artistic, although always aesthetic, phenomenon. When dealing with the artistic dimension, I am of the opinion that no other artistic medium today has such a wide variety of possible strategies, going far beyond the permanent discussions taking place on analogue and digital, at its disposal. Of course, the Photoshop phenomenon has made discussions on truth and reality even more topical. Artists have always understood technical developments in the history of photography as an art (take the phenomenon of Polaroid as one case in point) a challenge. How do they react today faced with the billions of pictures available on the Internet, a universe of images whose suggestive power is greater than that of reality, etc? What is the relationship between the ephemeral, easily eradicated image and the traditional print? The artists who were invited to participate opened the doors to their workshops, their laboratories, and made it possible for us to see inside.



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Figure 1 a, b

Friedrich Mauracher, 27.8.58 Im Zillergrund beim Gasthaus "Zillergrund" Angelika und Miki u. ein fremdes Mädchen, welches zufällig auf das Bild kam [In the Zillergrund near the "Zillergrund" Restaurant, Angelika and Miki and an unknown girl, who came into the picture by chance], gelatine silver-contact copy 9 x 6 cm, 1958, published in: Michael Mauracher, und ein fremdes Mädchen, including a narration by Josef Haslinger Südbahnhotel, Leipzig 2009. Credit: Dr. Friedrich Mauracher.



Figure 2 Andrea Van der Straeten, The Object is formed by searching for it (Slavoj Žižek), How does the letter get into the picture?, New York 2009. Courtesy of Andrea Van der Straeten.

This photograph, taken using a flash in the completely dark space under the stage of the Amato Opera in New York in January 2009, disclosed the, at the time still unpublished, letter with which Anthony Amato was to bid farewell to his staff and audience after 61 years of uninterrupted performances shortly thereafter.

Figure 3

Edgar Lissel, Domus Aurea, 2005, Bacteria on plasterboard 60 x 50 cm. Courtesy of Edgar Lissel. The Domus Aurea, built in Rome around 64 AD by Emperor Nero, remained unfinished after his death. It was filled in by his second successor Trajan and served as the foundations for the later thermal baths before gradually sinking into oblivion. It was not until 1480 that the subterranean rooms with their paintings were rediscovered and provided inspiration for numerous Renaissance artists.

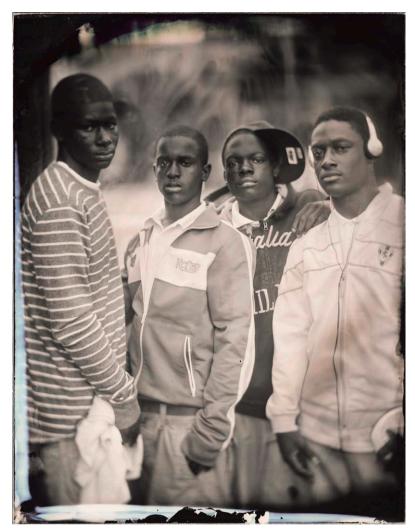
During recent research work at the site, a bacterial culture, which dissolved the lime plaster that bore the frescoes and destroyed the pictorial world of the Domus Aurea, was discovered and extracted. These bacteria are sensitive to light and have phototactic properties – they orientate themselves towards the light.

In my work, the same bacteria were applied to a piece of plasterboard and illuminated for several months with the picture of an already destroyed fresco from the Domus Aurea. A constructive process initiated by me caused the bacteria, which grow towards the light and are so destructive at the original site, to create a bacterial image of the fresco. The medium of destruction was reversed and applied at another location to produce a new pictorial world. (Edgar Lissel)

The spectrum of the participants chosen was wide-ranging. Three of the artists who gave information on their practices not only reflect on their work but also on the medium itself; they study it, inquire into its production and reception, take anonymously found pictures and include them as elements of their narrative (Michael Mauracher¹ fig. 1), synthesise analogue and digital images to form a structure that is at odds with our way of seeing but still provides us with special insights (Andrea Van der Straeten² fig. 2). Edgar Lissel³ (fig. 3) is convinced that the artistic process is profoundly determined by the apparatus. Martin Hochleitner considers his visual thoughts "media analytical and reflective."4 The three image creators mentioned enter

1. Michael Mauracher (Salzburg, Austria / Leipzig, Germany) is an artist, curator, and editor of Fotohof edition (together with Rainer Iglar). ‹www.fotohof.at›. Recent publication: M. Mauracher, *...und ein fremdes Mädchen*, Salzburg 2009. 2. Andrea Van der Straeten (Linz, Austria) is an artist and professor for experimental design at the Kunstuniversität Linz. Recent exhibition/publication: *Andrea van der Straeten [as if]*, Oberösterreichische Landesgalerie, Linz 2012. 3. Edgar Lissel (Vienna, Austria) is an artist and lecturer at art universities in Austria and Germany «www.edgarlissel.de». Recent publication: E. Lissel, *Vom Werden und Vergehen der Bilder*, Vienna 2008.

4. Martin Hochleitner, ,Die Ikonografie der Bildentstehung', in: Lissel 2008 (reference 3).



into a dialogue with the history and theory of photography in their works.

Agnes Prammer⁵ (fig. 4) investigates the history of photography in an extremely appealing manner. She combines a historical method – the "tintype" which developed in the 19th century – with contemporary still-life and nude images and, in this way, stages an irritation, a journey through time; and is photography concerned with anything but time? Her action of taking a pram converted into a laboratory with her has an ironical touch to it (fig. 5). The photographer and collector Fritz Simak⁶ sees his work sub specie of the history within which he discovers "his" pictures with the experience of the "punctum" in the sense of Roland Barthes (fig. 6).



Figure 5 Agnes Prammer, Pram Darkroom, digital Photography, Vienna 2013. Courtesy of Agnes Prammer.

Agnes Prammer (Vienna, Austria) is an artist «www.agnesprammer.com».
 Fritz Simak is an artist, photographer, curator and collector. «www.sputnik.at».

Figure 4 Agnes Prammer, Four Boys (from the Bus stop series), collodium wet plate, Saint Louis 2008. Courtesy of Agnes Prammer.



Figure 6 Jerry N. Uelsmann, untitled, 1980, gelatin silver print 27,7 x 35,3 cm. Collection Fritz Simak, Vienna.

Im | materialities

Hubertus von Amelunxen

Freedom is playing against the apparatus (Vilém Flusser)

Andreas Müller-Pohle, *Digital Scores I (after Nicéphore Niépce)*, 1995, digital pigment print, 66 x 66 cm, from a series of eight images. Courtesy of the artist.

Here the earliest known photograph is the subject of a series in which analogue photography is translated into alphanumeric signs by means of the digital code. [View from the Window at Le Gras], taken by Nicéphore Niépce [about] 1826, required an exposure time of presumably eight hours and could thus never correspond to the human gaze. This photograph was digitized, the information contained in the seven million bytes translated into alphanumeric signs and distributed over eight squares. The panels, unreadable for the human eye, represent the complete binary description of the oldest surviving photograph. The time of representation is thus transformed into the representation of information. (Hubertus von Amelunxen in: Andreas Müller-Pohle, Interfaces. Foto+Video 1977-1999, Göttingen: European Photography, 1999).

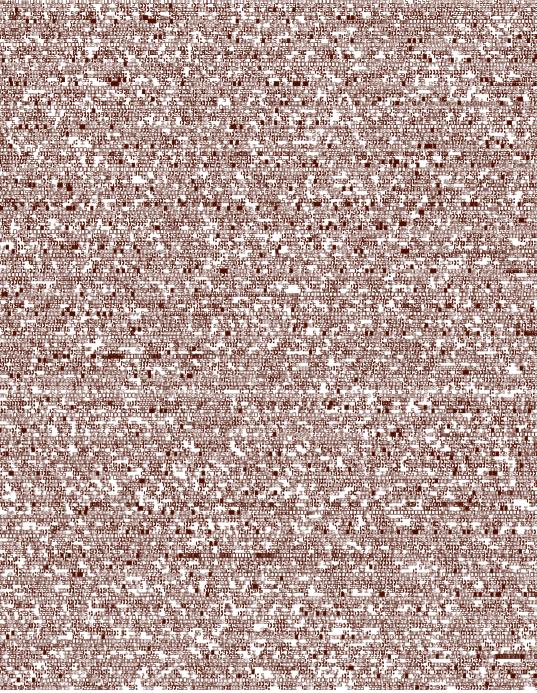
The more distant the origin of an image appears to us, the more powerful the desire to track down its materiality. Since its invention, very little has changed phenomenologically in photography seeing that the major, really revolutionary, development in the history of imagery was the invention of photography itself. The emergence of a technical-industrial art positioned the image in time. The question of whether a picture needs an exposure time of eight hours or 1/100,000 second is a result of the time constraint of the medium and although it might be considered progress in the development of the medium, this does not constitute a fundamental change for the photographic image. The transition from the analogue to the digital image also did not change the ontology of the photographic image, assuming that it is even possible to speak of such a thing. It is not the medium of photography that is immaterial; it is surrounded by material elements such as apparatuses and supports. However, the relationship between the spirit and matter has undergone a major change - not only, but especially, through the medium of photography - that has fundamentally also occurred through the development of the technological-industrial society. In his exhibition "Les immatériaux" held in the Centre Georges Pompidou in 1985,¹ the French philosopher Jean-François Lyotard attempted to make a re-evaluation of precisely this relationship between matter and the spirit, the creative spirit, so-called creativity. Originally, it was planned that the exhibition deals with the "new materials" - a technological and not organic, a computational and not semiotically-determined concept of the material, as well as the relationship to creativity. Lyotard's exhibition assumed fundamental significance because he put an end to a dualism between the material and the spirit and included both in the "family of the

'immaterial'". Only a few years later in 1993, Jacques Derrida made recourse to the concept of materialism in a similar manner in his treatise on the "Specters of Marx"² in which he provided the most far-reaching historical and social definition of Marxism and, at the end of the 20th century, caught up with society like a revenant. While Lenin understood matter as a "philosophical category denoting the objective reality which is given to man by his sensations, and which is copied, photographed and reflected by our sensations, while existing independently of them",³ a mere one hundred years later Günther Anders described the world as one absorbed with photographs that no longer corresponded to any material reference, as

1. Jean-François Lyotard, *Les immatériaux*: manifestation du Centre National d'Art et de Culture Georges Pompidou, 21 March - 15 July 1985, ed. by Chantal Noël, Paris: Centre Georges Pompidou 1985.

2. Jacques Derrida, Specters of Marx: The State of the Debt, the Work of Mourning & the New International, London: Routledge 1994. (First edition in French, Spectres de Marx: l'état de la dette, le travail du deuil et la nouvelle Internationale, Paris: Éditions Galilée 1993).

3. W. I. Lenin, Materialism and Empirio-criticm, Lenin Works, vol 14, 1908, 130.



a world that had completely become an image.4 In 1993 the Siemens Cultural Programme commissioned the organisation of the "Fotografie nach der Fotografie"⁵ exhibition. At the time, I formulated the central issue at point in the following way: "How should we view the photographic image, which was historically considered a guarantee of providing evidence, now that it has become separated from the world, today?" Something happened to our concepts and understanding of the material at the time when the wall between the East and West was cleared away and disappeared, programmes of telematic communication overcame the resistance of material, and the world developed into a borderless space for the projection of data. In his Cruel Tales,6 written a century earlier, the French writer Villiers de l'Isle-Adam invented the "lampascope" to project information coded as images into the sky so that it "could finally be used for something useful" in time

and space, but today we no longer reflect on the use of the photographic image, no longer on the activity of the human being; with his intellectual capacity, the human being succumbs to the contradiction or correspondence of the "possibilities of the apparatus" (Vilém Flusser).⁷ This takes our thoughts back to the Aristotelian differentiation of the possibilities contained in matter and reality – matter is "that out of which everything is composed" – in order to attempt to sift out a reality for the human in the possibilities of photography.

4. Günther Anders, *Die Antiquiertheit des Menschen.* Band I - *Über die Seele im Zeitalter der zweiten industriellen Revolution.* Munich: Beck 1956.

5. Hubertus v. Amelunxen (ed.), *Fotografie nach der Fotografie*, a project by Siemens culture Programme in cooperation with Aktionsforum Praterinsel, Munich, exhibition catalogue, Dresden: Verlag der Kunst 1996.

6. [Auguste] Villiers de l'Isle-Adam, *Contes cruels*, Nouvelles, 1883 (translated into English as *Sardonic Tales* by Hamish Miles in 1927, and as *Cruel Tales* by Robert Baldick in 1963).

7. Vilém Vlusser, *Towards a Philosophy of Photography*, translated by Anthony Matthews, London: Reaktion books 2000 (first published as *Für eine Philosophie der Fotografie* 1983).



Anatal and Digilogue Photography: Different but Indistinguishable

Andreas Spiegl It appears to make little sense to write a history of photography if one does not also keep an eve on the history of seeing at the same time and consequently question those concepts of visibility that provide the framework for the images that can only be seen under these conditions. Bearing this in mind, it is not possible to think about a history of the processes for producing images without looking closely at the history of sight as a counterpart. This essay intends to delve into the question about the relationship between analogue and digital photography in connection with the materiality and immateriality of the corresponding images from this perspective.

> If one considers the physiological research carried out in the 19th century and, above all, the corresponding findings on the "nature of vision" that was now seen in connection with the optic nerve and corresponding dependence of the perception of the visual on the bio-chemical or electro-chemical transmission of visual stimuli through the optic nerve, seeing itself stretches seeing to its limits. If what appears to be visible only reveals itself to be the product of the transformation of stimuli into nerve-specific impulses, seeing tendentially loses its connection to the world. The question of whether what appears to be visible actually looks that way or is really completely different from what the eye attempts to impart must be raised. The physiological experiments on the sense of sight made by Johannes Müller in the early 19th century provided sufficient reasons for showing fundamental mistrust in the impression that seeing transports or, in other words: to assume that the visual is only a product of the sense of sight and not a likeness of what appears to the eye. One could say that is sufficient to provide the sense of vision with a stimulus and it will always see something; more precisely: it transports simply everything into the perception of the visible - and only into the visible. Müller arrives at the "conclusion that the viewer can also experience the subjective sensation of perceiving light when there is actually no light present".¹

> Against this backdrop, seeing no longer seems to be able to provide an adequate picture of the world. In the 19th century, what the eye saw and the way the world looked became two different quantities. The visual was now only the visual translation of an original that possibly looked completely different. Expressed in a slightly exaggerated way, it could be said that seeing became blind in the 19th century. It lost its visual contact with the world it believed to see. Seeing started to mask the world, to cover it with a layer of visibility. Visibility made the way it really appears invisible. This "blinding" became a characteristic of seeing in the 19th century. In his Geschichte der Eisenbahnreise (History of Train Travel)² and research "on the industrialisation of space and time in the 19th century," Wolfgang Schivelbusch provides many examples of this "becoming invisible". The speed with which trains travelled through the landscape initially gave people the impression that they could no longer see anything. Everything that was nearby disappeared. Schivelbusch quotes "Victor Hugo in a letter dated

Gregor Schmoll, Vexiervase Nr. 10 (from the series Vexations - version d'image), 2007–2008, gelatine silver print. ©Gregor Schmoll, Vienna.

19. Jahrhundert, Dresden, Basel 1996, 96 (translated from American English by Anne Vonderstein). Here, Crary refers to studies on the sense of vision by Johannes Müller, published in his Handbuch der Physiologie in 1833 with an individual chapter on the subject 'Von den physikalischen Bedingungen der Bilder im Allgemeinen.'

1. Jonathan Crary, Techniken des Betrachters. Sehen und Moderne im 2. Wolfgang Schivelbusch, Die Geschichte der Eisenbahnreise. Zur Industrialisierung von Raum und Zeit im 19. Jahrhundert, Frankfurt am Main 1989.

22 August 1837: 'The flowers on the edge of the field are no longer flowers but patches of colour or rather red and white stripes; there are no dots anymore, everything becomes a stripe; the fields of corn become long yellow strands; the fields of clover appear like long green braids; the cities, church steeples and trees perform a dance and amalgamate with the horizon in a crazy fashion; from time to time, a shadow, a figure, a spirit appears at the door and disappears in a flash, it is the conductor."³ It can be stated that, in the early 19th century, the world appeared to bid its farewells, physiologically and empirically, as something visible, to withdraw from sight, to become invisible. In the context of a question searching for the relationship between materiality and immateriality, suddenly it is seeing itself that plunges materiality into the immaterial, that translates materiality into the perception of immateriality. The world appears to melt, to fade, to disappear. Unable to be stopped, it drifts by and, at the same time, increases the desire to capture it, to grasp the intangible. In the words of another contemporary of the early 19th century, in the 5th act of the second part of the tragedy of *Faust*, Goethe writes: "Then to the moment I would say: Stay a while you are so lovely!"⁴ Mephistopheles follows a few lines later with: "The last, the worst, the emptiest moment / The poor fool wanted to hold it in his arms.⁵ It is as if it had never lived / And yet chases around in circles as if it had."6

In the field of painting, early Impressionism paid particular attention to the disappearance of what can be seen and attempted to capture something on canvas before it vanished from sight. And, in his early manuscripts, Karl Marx expressed his thoughts on the alienation gaining ground in a world one no longer recognised. What remains "is the *alienation of man* from *man*. When man is confronted with himself, he finds the *other* man opposite him".⁷

If one takes all of these aspects into consideration, it appears that photography developed out of a historical context characterised by alienation and vanishing. Nothing remains but the knowledge and impression that nothing remains. And it seems that photography has an answer to this: its ability to capture what dissolves before one's eyes in a picture. The documentation of a disappearing world. An apparatus that, independent of the human eye, lays a visual path to the world that is in the process of withdrawing from sight. The only thing remaining of it is the image. Literally, what dematerialises before one's eyes becomes materialised anew in the picture. It captures what passes. In this sense, it appears that dematerialisation is the real motif of photography in the 19th century: photography as a counterculture in the context of a culture of vanishing. All that remains of the relationship between analogue photography and the world is the analogous hope that the material image brings back memories of its motif as having been material, promises analogue materiality, which dematerialises before one's eyes.

3. Schivelbusch 1989 (reference 2), 54.

Johann Wolfgang Goethe, *Faust. Der Tragödie Zweiter Teil*, Stuttgart, 2001, 203 (11581-11582) Goethe's Faust was published in 1827/28 at almost exactly the same time as photography was invented.
 Goethe 2001 (reference 4), 204 (11589-11590).

6. Goethe, 2001 (reference 4), 204 (11601-11602).

7. Karl Marx, 'Ökonomisch-philosophische Manuskripte. Die entfremdete Arbeit' (1840s), in: ibid., *Philosophische und ökonomische Schriften*, Stuttgart, 2008, 38.

Using the language of translation, it could be stated that photography translates dematerialisation into the materiality of the image. It makes it possible to take the alienated, immaterial motif in one's hand once again, to show one's eyes what has escaped them. Photography's supposed capability of providing testimony is based on this factor, the promise that the analogue image is capable of referring back to the vanished materiality of the motif. However, in the context of a history of seeing, it is no longer the materiality of the motif that is reflected analogously in the picture; the motif itself is assigned an analogue materiality through the materiality of the image. It is not the motif that inscribes itself analogously into the image; the materiality of the image is attributed analogously to its motif. This moment actually existed because the reality of the photograph provides proof (or at least should) of its reality at a later time.

Here, it would be going to far to mention all of the known factors that determine the corresponding image of the reality of the motif – from the aperture and exposure time, over the sensitivity of the film material to the image detail. It seems apparent that the aspect of the motif that appears analogously in the material image is defined by the apparatus. The apparatus determines how and as what the motif appears. Or, put differently: under different parameters, the same motif always appears different, is never the same but a variable factor. The motif changes analogue to the changed parameters of the analogue image. Only the parameters which determine the motif are visible in the analogue image: its material status is masked by the materiality of the image. It is as if the moment actually existed, the instant torn out of time and rescued from actually disappearing. A second, a fraction of a second, even less, chronic? As stated: A concept of time transferred to the motif by the apparatus. Photographic Faust. A moment in the subjunctive.

It appears that analogue photography is invested with a chronic relationship to the immaterial. It is analogue photography which materialises the impression of dematerialisation. Perverted materiality, seeing that it confirms that what appears analogue in the image no longer exists. The only testimony it can provide is to that of the desire for materialisation faced with a world that was in the process of vanishing. What it captures in the image is the disappearance itself. Proof of the immaterial. Evidence of the invisible that it intended to make visible. And that, long before one was able to even think about a digital image. This then leads to the question of the relationship of digital photography to materiality and immateriality. In the case of digital photography, the final materialisation is also interrupted, even translated into the binary, dissolves any kind of materiality into a numerical immaterial series of numbers. Digital photography's capability to bear witness and the notion that its images would ever take on, or even need, a connection to appearances of materiality starts to falter, to be doubted. What is created is the image of a photograph that is also capable

of producing pictures in front of the camera without any connection to a material world pictures without apparently any reference, pictures that have emancipated themselves from being reproductions, pictures that no longer depart from the context of the medial. Witnesses to medial immanence. This concept of photography seems to be linked to a changed concept of seeing. Considering the significance that media have assumed for the particular view of the world in the 20th century, what has been dealt with and described so many times must be repeated once again: one can characterise what has remained of seeing as a medially formed view. To a large degree, the image of the world presented to our eyes has a medial image to thank for its existence. These medial images shape the idea that one conceptualises for the visibility of the world; meaning that a medially available visibility prefigures the visible for the eye. The eye has already seen a medial image of whatever it perceives; it has an idea that precedes the actually act of seeing. One has seen the sights one visits long before the actual event and one only has to confirm that they correspond with the relevant image. In this sense, the "real" appears as the reproduction of the medial image. The medial image is not only the model for the real copies but also defines the real copies as elements of the medial; if you like, as tableaux vivants, living pictures. Faced with the omnipresence of the media, an uninterrupted "onlineness", permanently "being connected", there seems to be a desire to continually visualise the presence of the medial itself. Whatever appears is translated into the medial, posted, photographed, filmed and documented. However, this desire appears to be less focused on archiving the moment than on the synchronous metamorphosis of the moment into a medial event. The desire no longer targets the immediate but the mediate, the intermediation. The only immediate aspect is the translation into the medial, the recording, the moment that mediates the event, that transforms the event into one mediated. It appears that the media have assumed the function of a mediator, the task of acting as an intermediary, of intervening. In the same way as the news in television used to guarantee that one was only indirectly – and never really – affected by what was reported. Just as in reality TV, one is there in real time but only affected through the intermediary; not directly but still somehow involved. In order to enable the confrontation between the subject and reality, mediality has to intervene as a mediating agent. Things that could otherwise be too close for comfort seem distant when we know that they are medial. The medial guarantees that the picture locates the event somewhere else. What can be seen here is the desire for absence, a notion of visibility that wants to see that what can be seen is not present, that the visible motif is materially absent. It seems as if seeing is searching for the visibility of the medial, the visibility of absence. In this respect, the images aim at dematerialising an assumedly material occurrence. They reflect a desire that could not only be described as a desire for mediality but - analogously - as a desire for immateriality. In medial situations, what appears is not there:

only the medium – the camera, the monitor, the mobile telephone – is material; the motif is immaterial. Therefore, immateriality appears as a specific form of materiality: immateriality is a particular appearance of materiality that, under immaterial conditions, possesses the capability of materialising without materiality – as materialised immateriality. Although it sounds paradoxical: materialised immateriality indicates a form of absence that consists of not being present, of only being there through mediation, of being absent. Materialised immateriality is present absence. Immateriality is an idiosyncratic form of materialisation, materialised absence. That is why the notion of immateriality is also nurtured by that of materiality. Materiality is an integral part of it – under the condition of only being there through its absence.

The material and immaterial circle around each similar to the relationship between the virtual and present that Gilles Deleuze principally described in his Time-Image. Deleuze: "It is as if a mirror image, a photo or a postcard would gain a life of its own, become independent and pass over into the present and then, as soon as the present image returned to the mirror, once again take up its position on the postcard or photo, as if following a double movement of liberation and capture. (...) The present and virtual, which continuously inter-exchange, are different but indistinguishable." ⁸ It appears that there is an analogy between the material and immaterial. Both circle around a medially formed concept of reality, both alternate back and forward between a real and virtual pole. Different but still indistinguishable. The question of the relationship of an analogue or digital image to materiality and immateriality can now be answered for both from the present perspective. Both have a constitutive relationship to the material and immaterial, the possibility of being able to bring one or the other to the fore as required. The difference is not one of visual qualities but more a matter of the ideological and eidological perspective. As a rule, images prepared using analogue techniques are digitalised and put on the network just as digital images are printed on photographic paper and then appear to be analogue. The question for the one or other version is not oriented on the quality of the image or the motif but on the expectations placed in the corresponding manifestations. And these expectations are of a social or economic nature, varying between limitless availability on the network and the product as an economic factor - even if it is to satisfy the characteristics of being a work of art - once again, a question of the desire to see the same image as one or the other. The fundamental factor appears not to be the difference but the interchange between the two or, if one prefers: the economy of the view that emerges in this interchangeability. In order to describe this contemporary rotation of analogue and digital photography around an im/material core, it appears that the terms "anatal" and "digilogue" would be appropriate. Different but indistinguishable.

8. Gilles Deleuze, *Das Zeit-Bild. Kino 2*, Frankfurt am Main 1991 (translated from French by Klaus Englert), 95, 98.

The Modes of Inscription and Appearance of the Still Image in Beat Streuli's Work **Reflections on the Photographic Media**

Danielle Leenaerts Born in Switzerland in 1957, Beat Streuli first attended the Schools of Design in Basel and Zurich from 1977 to 1983. He then left for the Hochschule der Künste in Berlin, where he lived until 1987. Streuli refers to the attraction exercised by Germany in the field of visual arts in its responses to the modernist legacy with which he was struggling himself. His early works were created in the studio, associating faces, texts and objects as three elements that formed the basis of his aesthetics. The echo of minimalism – still vibrant in Bernd and Hilla Becher's work - coincided in time with a return to figurative painting. This reading of the state of contemporary art, as well as his interest in film editing, especially in the work of Jean-Luc Godard, will lead Streuli to investigate the history of photography, including Street Photography, in his desire to reconnect his art with the aspects of daily life, both in terms of substance and form. This is how, since the 1980s, he has come to develop a photographic work that also integrates video and installation practices, essentially consisting of portraits of individuals and passersby, taken with or without their knowledge through a telephoto lens, in cities around the world.¹

> Streuli divides his work into three categories: images, installations and time-based media, which we will not discuss here, to focus on still images. This classification appears essential to the work of this artist. It refers as much to the pictures he creates as to the relationships between them, the editing of the photographs having a central importance in his work. Within an almost unique theme - the anonymous portrait in urban areas - Beat Streuli associates the variations of faces and places to those of the very nature of the photographic image and its shaping possibilities. Faced with his art, the issue of the dialogue between materiality and immateriality of photography inevitably arises. It will successively be investigated through printed photographs (large format, billboards, wallpapers and translucent prints), as well as projected images on screens, walls or monitors.

1. Variations on the printed image

Streuli's photographic practice finds its origins in the appeal of this artist for Constructivism, of which he assumes the legacy in both his work on the structures of urban interstitial forms, driven to abstraction, and his willingness to produce an art rooted in everyday life, in which the viewer can recognize him/herself very directly.

The large format, favoured in Streuli's early works, asserts photography through the size of the picture within the exhibition space, demonstrating the autonomy of photography as an art, claimed in the 1990s (fig. 1). The large photographic format takes up the characteristics of the painted picture, as highlighted by Jean-François Chevrier: its material autonomy (it can

> 1. About his latest work, see : Jonathan Watkins, Jose Luis Perez Pont, Sadie Plant (eds.), Beat Streuli. New Street, exhibition catalogue Ikon Gallery, Birmingham: Cornerhouse 2012; (www.cornerhouse.org/wp-content/uploads/book-81814.pdf).



Figure 1 Beat Streuli, Exhibition view (Sydney 1998, Tokyo 1998, London 1997), Stedelijk Museum, with Gabriele Basilico, Amsterdam, 2000 – C-Prints, 181 x 244 cm each. © Beat Streuli (http://beatstreuli.com).

be moved); "it depends on a strict delimitation of space, commonly served by the framework, which separates it from its environment; [...] the 'tableau' presents itself as a frontal plane. [...] It will be presented on a wall or a chair rail. [...] The 'tableau' can be moved but not essentially manipulated, as it is the case with drawings, prints, photographic prints." Finally, underlines Chevrier, "hanging on the wall, it corresponds with the vertical height of the viewer in front of it. It tends to make the viewer stop in a static position of contemplation."² Streuli's photographs that meet these criteria are therefore part of a tradition of pictorial order, reclassified by photography as a contemporary technique of representation. But even if the photograph here borrows some of its characteristics from the painting, it still belongs, at the same time, to the tradition of photography as printed image while denying the reproducibility that is essential to the modern definition of the photographic medium. It is indeed a new aesthetic experience, at the intersection of painting and photography that is proposed here to the viewer.

By the mid-1990s, the image will come up through in situ installations, either temporarily (fig. 2) or permanently. The model here is not so much painting as media culture, expressed through the use of the billboard. The image becomes more mobile, in a format relying on reproducibility, originally dictated by the advertising system that has designed it. The photographic image becomes more fragile, submitted to climatic conditions, and to a life cycle

2. [Le tableau] dépend d'une convention de stricte délimitation de l'espace, signifiée communément par l'entourage d'un cadre, qui le sépare de son environnement. [...] le tableau se présente comme un plan frontal. [...] il sera présenté à la verticale, sur un mur ou une cimaise. [...] Le tableau peut être déplacé, il est transportable, mais il n'est pas essentiellement manipulable, comme le sont les dessins, les estampes, les épreuves photographiques.

Accroché au mur, il renvoie par sa verticalité à la stature du regardeur qui lui fait face. Il tend à arrêter le spectateur dans une position statique de contemplation. Jean-François Chevrier, 'Tableau/photo', in: Jeff Wall, Paris: Hazan 2006, 180, 181.



Figure 2 Beat Streuli, Museum in Progress (Visitors), Vienna, 1996, Nine Portraits, 3000 Billboards. © Beat Streuli (http://beatstreuli.com).

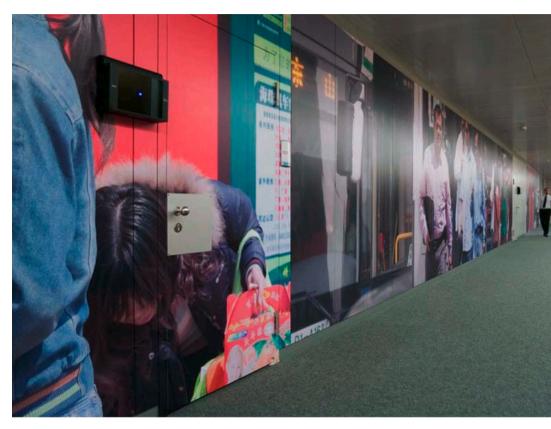
programmed for the short term, in keeping with the advertising purpose of the billboard. The choice of large format prints thus refers directly to contemporary visual culture inherited from advertising as well as film, as stated by Streuli, "I want to have installations that are big and beautiful just as the movies are, or great billboards, and without selling a stupid product."³ To unclutter the media channel from the type of message imposed by capitalist economy, limited to creating consumer desire, is to remember, as Martine Joly does, that the billboard is "by essence a public image, this is to say that it is not private and its function is to hold a public speech."⁴

The support of the billboard display relates to the lightness of paper; a support qualitatively poor and fragile. We can already find here a first form of lightening of the images, which will further be pursued. Streuli's use of billboards also induces the editing of images, consistent with one of the principles of their effectiveness: repetition. Indeed, [...] "it is essential to show it again", writes Anne-Marie Christin," [...] so that the image of it that takes shape in the passerby's consciousness, through unpredictable fragments, finally forces him to stop before one

 Quoted in: Trevor Smith, 'Everyday Arcadias', in: Beat Streuli. Über die Welt / About the World. Bondi Beach / Parramatta Road, exhibition catalogue, Hanover: Sprengel Museum 1999.
 Aussi [...] est-il essentiel à l'affiche qu'elle se répète, [...] pour que l'image d'elle qui s'élabore dans la conscience du promeneur, par fragments imprévisibles, oblige enfin celui-ci à s'arrêter devant l'un de ces panneaux dont

4. L'affiche est par nature une image publique, c'est-à-dire non privée et il est donc de sa fonction même de tenir un discours public. Martine Joly, 'Le paradoxe de l'affiche', in: *Image & Narrative. #21. L'Affiche contemporaine: discours, supports, stratégies*, March 2008, 8 (http://www.imageandnarrative.be/affiche_contemporaine/joly.htm (26.5.2009)].

5. Aussi [...] est-il essentiel à l'affiche qu'elle se répète, [...] pour que l'image d'elle qui s'élabore dans la conscience du promeneur, par fragments imprévisibles, oblige enfin celui-ci à s'arrêter devant l'un de ces panneaux dont la litanie le harcèle afin de vérifier vraiment de quoi il s'agit. Ce déchiffrement successif, marginal et aléatoire [...] est une des conditions nécessaires de l'affiche. Anne-Marie Christin, L'image écrite ou la déraison graphique, Paris: Flammarion 2001, 155.



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Figure 3
Beat Streuli, Untitled, Permanent Installation,
Banque Pictet, Genève,
2009 – Wallpaper installation 2,50 x 50 m.
© Beat Streuli (http://beatstreuli.com).
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of these panels whose litany harasses him, in order to really check what it is. This successive, marginal and random reading [...] is a necessary condition of the billboard."⁵

This principle of repetition manifests itself in different ways: for example, by multiplying the image in one of the first installations, *Visitors*, created in Vienna in 1996. Nine portraits of tourists photographed in the city centre were reproduced on 3000 billboards and exhibited on the outskirts of the town. Editing can also associate different pictures from the same series. This editing procedure finally admits repetition of images taken at very short time intervals, so that the models almost seem to animate through these micro-sequences.

The billboard designed for the outdoor space finds a counterpart in the 'wallpaper' format that first appeared in Streuli's work around 1998. The images here are literally stuck to the wall, in an absolute fit with the surrounding architecture (fig. 3). The term 'wallpaper' refers to the original utility along with the decorative and domestic qualities of this image support.



Figure 4

Beat Streuli, Untitled, Permanent installation, Triemli Hospital, Zurich, 2002 – Translucent digital prints mounted on glass. © Beat Streuli (http://beatstreuli.com). The reference to the uniqueness of painting, as well as the commercial referent of the billboard display, is suppressed here. Images surround the viewer and transpose the anonymity of large cities in the nearby places of exhibition or work, bringing the photographs to a more intimate dimension. From the point of view of their materiality, the lightness of the paper image on the wall induces that architecture becomes a purely visual environment.

The opacity of the paper work coexists with its transparent counterparts, translucent prints (fig. 4). Since 1996, this type of device has shown images crossed by the natural light of day, or artificial light at night. Here, the architectural support does not play a role of environment for the viewer, but rather that of a through-wall, between the inside and the outside. During the day, the glass transparency allows the images to be incorporated with the inner space, while maintaining visibility of what lies outside, and is added to the contents of the image. Conversely, at night, the window is assimilated to a form of screen, the back of the picture being darkened, while it reflects the light sources in front. Paradoxically, the lighter the surface of the image gets, the more it thickens by incorporating the facing elements.



These dialogues continue in a series of more recent images showing stopped drivers through their car windows, as well as reflections on their car surfaces (fig. 5), in which Streuli combines his two favourite themes, namely: the urban portrait and the more abstract components of the city environment. The evocation of movement is also present, marked off by the figure of the car. According to Streuli's attention to the relationship between the images and their exhibition sites, the glass frames of the c-prints double the images by the reflections of what actually stands in front of them (fig. 6). The frozen temporality of the image is thus associated to the continuous temporality of the actual reflected elements, while the photographic image is doubled, as material object, with a second immaterial image that is pure refraction.

Figure 5

Beat Streuli, *St. Petersbourg 10. 109 7982*, Chromogenic print 80 x 115 cm, 2011. © Beat Streuli (http://beatstreuli.com). This type of incorporation also occurs with the use of light boxes: for example, in the permanent installation at the Ghent train station (fig. 7). Designed as a means of commercial advertising, the light box shows a photographic image printed on a translucent surface, illuminated from inside the box. Various light sources overlap once again here, whether they come



Figure 6 Beat Streuli, Exhibition view (Porte de Ninove 07/08/09, 2007-2010) Galerie Wilma Tolksdorf, Berlin 2010 – Digital Prints, 150 x 225 cm. © Beat Streuli (http://beatstreuli.com).



from the brightness of the image itself, from the light of the device or from the external light, natural or artificial, which is reflected on the surface of the work.

All these modes of inscription of photography recall the primacy of light in its very definition, its etymology precisely referring to a form of writing or drawing with light. Beyond this reference, transparency can also be considered from an ontological point of view, regarding transparency as a quality of the photographic medium as a recording tool, or as a "transparent mirror of reality". The issue of transparency is not without reference to the posture of the artist himself becoming almost invisible to those he photographs.

It should be emphasized that these various supports of the still image coexist in a permanent confrontation.

Streuli's exhibitions are constructed according to principles of montage, combining images as well as different photographic modes including projection.

2. Projected photography

Since the early 1990s, slide shows indeed reply to variations of material inscription of photography. First presented on a single screen, then on multiple screens (fig. 8), slide installations continue to develop the installation procedures that were already at work with an added reference to cinema. As the image is no longer printed but projected, its physical existence tends to be reduced to a single appearance in a sequence of still images, animated through the projection. Nevertheless, the viewer is aware of their photographic nature, as they appear one by one, in a slow motion, and remain projected for several seconds. The monumentality of the screens or walls on which they appear evokes the size of movie screens. Paradoxically, the projection on the wall underlines the architecture and denies it at the same time. The built surface no longer exists for itself, but as a screen on which the images show an outside world. Therefore, this device not only dematerialises the photographic image, but seems to proceed in the same way with respect to its architectural support.

Light is once again the vector of this derealisation. Generally presented in darkened spaces (fig. 9), the images seem to be formed by the luminous flow which projects them. The use of

Figure 7 Beat Streuli, La Voie publique, Permanent installation, Sint-Pieters Station, Ghent, 2010 – LED Lightboxes 3,3 x 94,5 m. © Beat Streuli (http://beatstreuli.com).

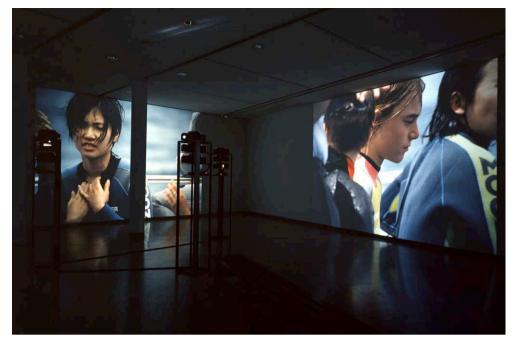


Figure 8 Beat Streuli, *Bondi Beach/Parramatta Road*, 1999, Five screens installation, Museum fur Moderne Kunst, MMK, Frankfurt/Main, 2010. © Beat Streuli (http://beatstreuli.com).



Figure 9 Beat Streuli, *Rue Neuve 08*, 2008, Digital HD stills projection on three walls, Mac's, Musée d'Art Contemporain, Grand-Hornu, Belgium, 2008, 6 x 9 m each, 20 min. looped. © Beat Streuli (http://beatstreuli.com).

> crossfade reinforces this impression of back and forth, of streaming images though in limited number, determined by the loop. Here again we find a remarkable proximity between the photographed subject and photographic representation, the appearance of images corresponding to the effective individuals caught in the flow of urban movement. From this perspective, the duration of the projection plays a similar role to the one played spatially by the telephoto lens, bringing the photographed individual closer to the viewer. The extended time of the appearance of the image achieves the same, on a time basis. This dual effect of bringing closer in space and time is somewhat ambivalent. The telephoto lens, which isolates the figure from its environment, only brings these individuals closer in their momentary appearance,

giving the viewer the impression he is unable to grasp them, that he can only approach them remotely and briefly. The expression of otherness is therefore added to the representation of the flow of anonymous passersby, as the individuals remain strangers to each other, or their cultural affiliations referring to territories foreign to the one in which they live. This is also the case with Streuli, who photographs at least as much in foreign cities as in those where he spends longer sojourns.

We will further note that this format is basically elliptical. An interval, a gap which is not perceptible in its cinematic model, separating the images from each other, is revealed here. It is this intermediate form that Streuli is interested in. "Above all", he states, "slide projections allow me to work on the borderline between the static and the cinematographic image. This pivotal position makes one fully conscious of the structures inherent in the two media; what's more, the succession of images reveals by indirection the spaces that surround my 'characters' –the actors of my photographs– and it emphasizes the intervals between two movements, two moments suspended in time."⁶ This in-between is not only reminiscent of the photographic origins of film, as it projects twenty-four photographs per second. The unveiling of this device is also manifested through the presence of the slides trucks, as an integral part of the installation.

Interestingly enough, slide projections have coexisted with slide shows on high definition plasma screens (fig. 10), incorporating the latest technological innovations since 2007. This implies a delimited support again, which is the screen as an object. This containment of the pictures within a framed screen and the duration of each photographic appearance once again place this device in perspective with painting. But in contrast to this model, the purpose here is to diffuse transitory images, just as television does in a faster way. Streuli's application of this medium goes beyond its common use, leading once again to a hybrid device. A hybridisation which is pursued through the exhibition by the presence of different types of support.

This overview of the various supports of Beat Streuli's photographic expression shows that the wide variety of media he uses is not dictated by the evolution of representation techniques, but that he includes them according to his projects. The exploration of the photographic materials appears to be a research in itself, associated with a perpetual renewal of the urban portrait. The permanent dialogue between material and immaterial aspects of photography leads to a form of reflection on photography in its plurality, as media rather than a medium. A reflection which has been conducted through analogue as well as digital

> Martine Béguin, Jean-Paul Felley, 'Interview', in: Beat Streuli. Allen Street, exhibition catalogue, Sankt Gallen / Dijon: Kunst Halle Sankt Gallen / Consortium 1994, 28.



Figure 10

Beat Streuli, Porte de Ninove 07, 2007, Digital HD slide show on two 50' plasma screens, Mac's, Musée d'Art Contemporain, Grand-Hornu, Belgium, 2008, 20 min. looped. © Beat Streuli (http://beatstreuli.com).

photography, incorporating their specificities through a same feature: light. Light that is, by definition, a form of radiation consisting of electromagnetic waves that propagate at their own pace, of a flow of energetic particles devoid of any mass: the photons.

Illusory Images in the Brain – Fleeting Images in the Net – Captured Images on Paper

Klaus Honnef Any person who desires to find out more about images than simply that they are phenomena that can be seen will soon run the risk of opening up a Pandora's Box. An anthology edited by the art historian Gottfried Boehm in 1994 posed the question of "What is a picture?"¹ And it comes as no surprise that the answers provided by the authors from a great number of scientific disciplines such as art history and the fine arts, philosophy, anthropology, cultural sociology and literary studies were quite different. However, the reference to the scientific background of the authors is in itself an indication that images are omnipresent. Depending on the individual perspective, they stressed one or the other specific property of images. The orientation of the answers was determined by the theoretical alignment of the individual sciences of aesthetics so that only partial – and therefore limited – insights appropriate for the other disciplines were provided. In any case, the anthology is characterised as the programmatic publication of what is known as the "visual turn" in new-German.

> The volume of collected essays "Bildwissenschaften - Disziplinen, Themen, Methoden" (Visual Sciences – Disciplines, Subjects, Methods),² published nine years ago by Klaus Sachs-Hombach, offers a broader view. He expands the focus beyond the specifically aesthetic and artistic frame to a genuine pluralism of disciplines but becomes increasingly lost in a terminological spread. However the, mostly summary, descriptions his authors provide the readers with show more variety than those in Boehm's compendium, although most of them present their views using a very specific nomenclature in order to demonstrate that their own particular discipline is actually the only one of major interest. On the other hand – provided one does not give up reading the collection too soon out of frustration - some of the correspondences between the individual disciplines, which occasionally only have slight nuances of difference, make it possible to draw some illuminating links. In spite of that, the postulate remains focused on the independent status of the respective branch of science, particularly when dealing with the numerous splits that have taken place in what were once central scientific fields, and one has the impression that there are just as many visual sciences as there are visual scientists. And, it is strange to observe that, in explanations based on the natural sciences, there is a dominating conception that images are capable of imparting relatively precise information about what they show and that they are not primarily to be treated as images with a will of their own.

> It is only by chance that I selected these two books to throw light on and demonstrate the state-of-the-art of the discourse on the disposition and function of pictures - the reason is simply because both are included in my personal library. At the same time, I feel that the specific characteristics of the two collections are symptomatic of the pretention of almost all publications of this type that claim to explain matters but actually only make things more

^{1.} Gottfried Boehm (ed.), Was ist ein Bild?, Paderborn 1994.

^{2.} Klaus Sachs-Hombach (ed.), Bildwissenschaft. Disziplinen, Themen, Methoden, Frankfurt am Main 2003.

complicated through the construction of an increasing number of ramifications. Of course, it would be possible to choose other publications of similar quality and significance than those mentioned above. That would only lead to the contents of the Pandora's Box, which is already difficult to fully comprehend, becoming even more confusing. One would eventually come to the conclusion that an image can be everything as well as the exact opposite. Whereby possibly the most curious result of the accounts presented is that hardly any of the authors take the extent to which their ideas are subjected to the conditions of historical change, and even the dictates of fashion that have long since taken hold on the sciences, into consideration. And particularly not that some pictures are invested with the tendency for offering new possibilities for interpretation when they are confronted with forms of perception different from those at the time of their creation. All in all, in the best case, pictures are considered visual proof of the history of science as in those investigations that regarded the camera obscura as the model for optical perception and founded their scientific knowledge on this error.

To paraphrase a simplified observation – this is because the medium of photography is no longer what it originally was; or more precisely, what it was once considered to be and defined as. Not only the change from analogue to digital technology has altered the nature and structure of the photographic image. Although this radical development only surprised those who were fixated on analogue technology and considered it an absolute sine qua non for the photographic (and still continue to do so). In fact, the path to this change was successively paved by the dramatic expansion of the realm of photographic use and the resulting modification in photographic character towards a fictionalisation of photographic images. From a technical viewpoint, the digital picture, which now determines the image of photography, has almost nothing at all in common with the analogue. But that is also practically everything.

In this way, those magnificent theories that were sparked by the indexicality of the photographic image are gradually finding their place alongside theories of optical perception inspired by the physical laws of the camera obscura: stored away in the archives of history. If one would fine tune Gottfried Boehm's question of "What is a picture?", which ignored photography as a pictorial medium, to "What is a photographic image?", the answers would undoubtedly show a completely different pattern of argumentation than they did half a century ago in the heyday of analogue photography.

Correspondingly, digitally produced images now sail smoothly across the wide expanse of the ocean of images under the banner of the photographic. And even most analogue images are influenced by digital technology during their production process – in contrast to painting, the term "production" applies to photography. They frequently also experience a notable improvement in the quality of their reproduction and wealth of detail completely in

LAWRENCE WEINER

1940, lebt in New York, z. Z. Amsterdam

Lawrence Weiner, Slowly raised water, 1970, published in: Exhibition catalogue Umwelt-Akzente. Die Expansion der Kunst, Kunstkreis Monschau (9 Mai - 21 Juni 1970) curated by Klaus Honnef.

Langsam gestiegenes Wasser

keeping with their author's intentions. The criteria mentioned are naturally in no way absolutely hard and fast – and cannot be – for a qualification of photographic images; they must be classified at a higher or lower level depending on the historical constellation. A person with the intention of limiting the concept of photography to analogue images would soon be forced to face the fact that the history of photography has long arrived at its final chapter – at least as an optical mass medium.

But the complaints about the disappearance of the medium of photography have calmed down in recent times. Consolation has been provided by the statement made by the media scientist Herbert Marshall McLuhan – who has once again become widely quoted lately - that a medium can never completely disappear; it is much more the case that it becomes subsumed in following media and will also continue to be executed by some enthusiasts: woodcuts in art are one example of this. Similar to the woodcut, analogue photography will continue to exist as a special area of artistic activity. It is also true that the fundamental shift of its technological premises from analogue to digital has not resulted in photography changing - at least in terms of its external appearance and potential uses. It is still true that a lens - or even better, a complicated system of lenses - focuses light waves and sets a process in motion that result in an image. The change is mainly in the process of generation. Even a welltrained eye will find it difficult to determine what has actually been altered in the image, the end product of photographic activity. And that, argue the art critics, is precisely where the pitfalls of the process lie although it is clear that any image manipulates what is seen. On the other hand, the general approach to the medium is experiencing a radical transformation: namely, through "cell photography". On the one hand, photographing with the cell or mobile phone has led to the number of pictures being taken skyrocketing in recent times and, on the other, this has also resulted in enormous wastage.

Any one who ignores this and still champions the conviction that a photographic image represents a faithful testimony of the photographed objects obviously attributes the analogue, in contrast to the digital, photographic image with a certain truthfulness that is not identical with the philosophical concept of truth in the sense of a revelation but assumes that there is a conformity between the object depicted and its image. Although what can be seen in the photographic image is not present in the picture, it was actually once in front of the camera and provides a clear documentation of its existence post festum. The relevant formula, based on the indexical matrix of the photographic, postulates that that is the way it was. The theory is well known. It reflects the undiminished effective collective relationship to the medium of photographic images characterised by the fact that, since the first time pictures found their way out of the apparatus, they were invested with the quality of truthfulness (authenticity) unlike painted pictures created by hand. The concept that, in contrast to a painting, a photographic image is objective has continued almost uninterrupted – in spite of the transition from an analogue to digital process in the generation of images – and shows no indication of being in a state of crisis. Quite the contrary. In reality, recent empirical studies indicate that it appears to be increasing. Unaffected by the numerous allegations resulting from photographic fakes, the tendency to confuse the object with the image and vice versa is accelerating. It seems obvious that the reasons for this development should not be sought in the change of the technique used to produce the pictures but has reasons rooted in a sweeping socio-cultural transformation; a transformation affecting social aspirations and expectations in the world of an advanced civilisation seeking refuge from the challenges of everyday life in surrogate-like symbolic events. In keeping with the understanding that pictures only provoke pictures.

That is the reason that the question of the unique qualities of photographic images cannot avoid the fundamental question of whether images – no matter how they originate – posses an individual life or not. This immediately leads us to the next question: What role do images play in the light of these conditions for the psychological and sociological balance of mankind? Or more precisely: *Not* what they mean is of major interest in this case, especially because their horizon of meaning can change under altered circumstances, but what they *are* as entities, as individual things, independent of the influence of historical changes; what is the significance of this status and what implications develop out of this for their relationship to humans and vice versa?

Images create a bridge between what can be seen and seeing. Conversely, they have an individual and collective influence, which can not be measured exactly, on the way in which the visible world is perceived optically. In Maurice Merlau-Ponty's words: Nothing is more difficult to understand than what we actually see. This includes that, even in the case of conscious seeing that is not limited to simple recognition, "seeing seeing" (Max Imdahl) to quote Bernhard Waldenfels, it is necessary to differentiate "between the possibility of *seeing new things* and the possibility *of seeing in a new manner.*"³

The areas of the visible are naturally of primary interest in pragmatically operating interpretations. However, the areas of the visible have also been expanded by entire universes in the field of photography. The trenchant title of another book provides a clear expression of the quintessence of photographic practice so far: "Photography Changes Everything" edited by Marvin Heiferman.⁴ In this volume, experts throw light on the various fields of knowledge, the extent to which photography has changed their scientific disciplines, expanded their domains to include new territories – and occasionally even made these accessible. The fact that extending the areas of the visible possibly oversteps the borders of the reasonable is

3. Bernhard Waldenfels, 'Ordnungen des Sichtbaren', in: Boehm 1994 (reference 1), 237.

4. Marvin Heiferman (ed.), *Photography changes everything*, New York 2012.

signalised not only in the, mostly self-righteous, storms of indignation in the secular western hemisphere when taboos are broken, but is also witnessed in a concrete example provided by the anthropologist Haidy Gismar.⁵ In the cultural universe of the Australian aborigines, a person enters the realm of the invisible when he dies. That is why whatever reminds one of him is destroyed; his property burned. He is dead and is once again erased symbolically. That is why photographs as "echo images" of the dead present a physical challenge for his survivors and act as a serious violation of their cultural concepts and background. As a result, certain Australian institutions, archives and museums decided to either remove the deceased persons from photography or only show them with the appropriate warning. The ban on showing God and the complex subject of religiously motivated iconoclasm in western cultures in general must also be included in the expanded context of this problem which has only been sketched here and continues to be so virulent.

Pictures are the visual building blocks of human consciousness. Humans create an image of the world and regulate their relationship to it with their help. The question of what is understood by the word "world" must remain unanswered here. But: "It should be clear that if there are no images without objects (as material support or referential target), there are no objects without images."(W. J. T. Mitchell)⁶ Melanie Klein notes that good and bad objects are really 'imagos, which are a phantastically distorted picture of the real objects upon which they are based".7

Entire libraries are full of books written on individual cases of the relationship between man and the world. This can be an extremely complex affair. In any case, consciousness manifests itself in an indissoluble fabric of thoughts, feelings and hearing, as well as the condition of how the world presents itself to the subjective self.

Images of various origin and character circulate incessantly in the human consciousness; they are vague and fleeting and only seemingly clearly defined for a few moments and are triggered by many diverse forms of external stimulation to the senses. They obviously include material images or, more precisely, virtual images that can be traced back to them and which function as their stimulus. However, they do not play the central role. Memorial images of lived experiences, things one has heard and seen, control the volumes of human consciousness more strongly than material images. However, even faced with material images, the objects interlock as soon as they are released from acute contemplation. They promptly merge seamlessly with the images of the memory and conception of the viewer, with the images in his head. Fundamentally, that occurs during the period of contemplation because the subjective self develops its own individual attentiveness and orientates its perception on their specifications and guidelines. This can occasionally be so definitive that what is immediately

Heiferman 2012 (reference 4), 73-75.

5. Haidy Geismar, 'Photography changes who can see images of us', in: 6. W. J. T. Mitchell, What Do Pictures Want? The Lives and Loves of Images, Chicago and London: The University of Chicago Press 2005, 108.

> 7. Melanie Klein, 'A Contribution to the Psychogenesis of Manic-Depressive States' (1934), in: Contributions to Psycho-Analysis, London: Hogarth Press 1950, 282; guoted in: W. J. T. Mitchell 2005 (reference 6), 108.

in front of the eye becomes observed through the lens of an image stored in the brain or completely disappears behind it. A fundamental goal of visual rhetoric is the stimulation of the imagination of the beholder so that it extends beyond the limitations of what is shown – but, of course, in the direction prescribed by the image and its author. In short: to manipulate the view. Irrespective of whether the viewer is encouraged to expand what is visually represented or whether the visual rhetoric triggers impulses for action. In addition to having a command of the technical means, the talent of any artist reveals itself in its capability to focus the direction of the visual imagination. Is there anybody who has not been surprised when they see an image a second time and fell that it does not conform with the one stored in the their memory?

This shows that there is an echo of an immaterial component in each image. It is an immanent component of images and a factor of their effectiveness. Even painted, photographed, filmed and videographed images with an express reference to the visually experienced reality are modified by the excessive powers of the imagination. Here, the context in which they appear also plays an important role. As a countermove, they enrich and influence the experienced reality. They visualise persons, events and objects that are absent – meaning not existing in the respective picture or merely in the form of graphic symbols and their interconnection. From that point of view, materially fixed images also oscillate permanently between a tangible concreteness, their condition of existence in a manner of speaking, and the realm of the imagination by which they transcend this. They either wander through the domain of metaphysics or the past that – in keeping with Walter Benjamin's concept of art and Gilles Deleuze's film theory – makes the invisible visible in works of art as an element of the present. It is not by chance that images created by the technical media of photography and film so precisely "embody" this aspect.

In a position of this kind that is so intent on a critical distance, the tremendous percussions and alterations that the change from analogue to digital photography caused for the medium shrivel to the dimension of a further stage of technical development. Technical innovations have accompanied the history of photography since its earliest days. Of course, digitalisation has made deep inroads into the technical constitution of photographic images. But this can be compared with what resulted from the transition from the Daguerreotype to the positivenegative paper print. From a practical viewpoint, this new technology considerably expands the radius and field of application of the medium of photography and accelerates the speed with which it can be transported around the world in a way that was previously unimaginable or only possible with great difficulty. On the other hand, the number of images has increased far beyond the accustomed borders, levelled them out of necessity, erased differentiation and, in future, grants algorithms almost unlimited powers of influence on the perception of the subjective self.

The world will not disappear behind the digitalised images even if the ambiguity between the image and what is shown does increase. However, digital pictures will redefine the way the world is seen over the long term because their rapidity and omnipresence will change the sting of "That is how it was" from images to "That is how it is – now! (ongoing)". With the result that the world will appear as a gigantic consumer article, available cheaply, to be used quickly, with the best-before date left out.

Of course this will only occur to the extent that the immaterial side of the images prevail over the material, to the extent that they guide the views of desire away from themselves to the object they reproduce or target new images. That is why digital images will gradually fail to become objects of speculation, material works of art, of lasting value. And that is probably the bitterest loss in a reality obsessed by the material.

Anticipation and Reality A Re-Evaluation of Autochrome Projection

Caroline Fuchs

In the history of colour photography, the autochrome constitutes the first big step towards a commonly available process. Autochromes, even though expensive, were the first colour plates to be used internationally by a wider group of photographers, and that over almost thirty years. Since the 1980s many publications have investigated the aesthetics and exponents of this process. But within this research activity, investigations into the conditions of the use of autochrome plates have played rather a minor part. This is astounding as, especially with autochromes, the materiality of the plates and its consequences played an important role regarding its everyday use and dissemination. As every autochrome is a unique glass plate,¹ it can only be viewed in front of a light source. The colour registration is achieved by superimposing a panchromatic emulsion with a very fine mosaic screen consisting of coloured starch grains.² The materiality of this screen is both the reason for the great success of the process as well as its greatest hindrance.³ While it provided the finest colour screen that produced luminous colour photographs, it also rendered the plates so dense that only 7.5 per cent of the incoming light was able to pass through.⁴ Therefore, their projection required an extremely powerful light source that produced much heat threatening to destroy the unique photographic images.⁵ Until now, this form of presenting autochromes is usually described in ambivalent terms. On the one hand, research focuses on successful projectionists of these early colour photographs⁶ and, on the other, the same publications point to the fact that autochrome projection was confined to special conditions.⁷ Still, while pointing to this difficulty, Natalie Boulouch and Arno Gisinger, in their essential and fundamental study of autochrome projection,⁸ present this form of presentation to be the perfect way for the distribution of

1. Autochromes could not be directly reproduced. Attempts to solve this problem in the form of the bleach-out process called Utocolor were never really successful.

2. The minuscule starch grains toned in green, violet and orange-red measure only 0.015mm. The grains were mixed and glued onto a glass plate and the interstices filled with coal powder. Combined with a panchromatic photographic emulsion, this screen filtered the incoming light into three colour canals before it registered on the photographic emulsion. After reversing the photographic image, the same screen served as the viewing screen and stayed bound with the registered image.

3. On the technical side, the starch grain screen was an enormous progress. It combined the three negatives necessary for preceding colour processes such as the Sanger-Shepherd-process into one plate, thereby considerably facilitating the process. The little of the grains that was discernible to the eye met with the taste of many contemporaries, even though Louis Lumière had tried to make them invisible: Bertrand Lavédrine and Jean-Paul Gandolfo, *L'autochrome Lumière: secrets d'atelier et défis industriels*, Paris: CTHS 2009, 266.

4. This low percentage is stated unanimously by Brian Coe, *Farbphotographie* und ihre Verfahren. Die ersten hundert Jahre in natürlichen Farben 1840– 1940, Munich: Laterna magica - Edition Photographica 1979, 52 and Lavédrine and Gandolfo 2009 (reference 3), 96.

5. If exposed to heat, discolouration started at 60 degrees Celsius: A. Palme, 'Projection of Screen-Plate Transparencies', in: *British Journal of Photography (Colour Photography Supplement)*, vol. 27, no. 315, 1933, 3.

6. A short evaluation of the most famous of these photographers can be found in: Nathalie Boulouch and Arno Gisinger, "Der große Erfolg der Autochrome-Platten liegt in ihrer Projektion". Das projizierte Bild als privilegierte

Präsentationsform früher Farbfotografie', in: *Fotogeschichte*, vol. 19, no. 74, 1999, 52-56.

7. This contradiction between the technical difficulties and the reports of successful autochrome lectures has only recently been pointed at by Franziska Maria Scheuer in: 'Neue Betrachter – Neue (Bild-)Räume. Die Autochrome-Projektion in Konkurrenz zur früheren Kinematographie', in: *AugenBlick. Marburger Hefte zur Medienwissenschaft*, vol. 53, 2012, 73.

8. Although they mention technical limitations and difficulties and deduce that only well-equipped photographic societies, those that were in the position to afford the potent projectors needed, were able to give autochrome lectures, they still form the general conclusion that amateurs were the ideal target group to project autochromes. They write, "Der 'Realismus' der Autochrome entsprach dabei ganz dem Wunsch vieler Amateurfotografen nach einer möglichst perfekten Illusionserzeugung und beförderte zusätzlich die gängige Praxis der gemeinschaftlichen Projektionen in den zahlreichen Fotoclubs, Amateurvereinigungen und fotografischen Gesellschaften jener Zeit." They thereby refer to a quotation by Albert Londe, who wrote in 1909, "Der große Erfolg der Autochrome-Platten liegt in der Projektion", in: Boulouch and Gisinger 1999 (reference 6), 52. Jens Ruchatz embraced this idea in his extremely comprehensive, well-founded and lucid PhD thesis: "Hier aber [he refers to the well to-do photographic societies] - häufig bei eigens veranstalteten 'Autochromeabenden' - fand die Projektion von Autochromen eine Heimat". The sole limitation he mentions to have inhibited the use of autochromes projection is the high price of the plates and the special equipment needed for projection: Jens Ruchatz, Licht und Wahrheit. Eine Mediumgeschichte der fotografischen Projektion, Munich: Fink 2003, 434; see also 205-206.

autochromes especially within amateur⁹ circles. In their eyes, the immaterial presentation via projection was by far the best way to overcome the material deficiencies inherent in a positive process that produced unique copies on glass and whose images could only be viewed when held before a light source. Indeed, the most lamented disadvantage of autochromes was the fact that they could not be easily presented to a larger audience.¹⁰ Still, as will be shown in this essay, projection was not the solution to solving this problem for the average amateur.

There are two aspects that define which photographers projected autochromes. Firstly, there are the technical requirements that will be outlined below. These can be assumed to be internationally on a comparable standard, as new devices and techniques were quickly made known outside their country of origin.¹¹ Secondly, there were conventions defining the use of projection in general that differ between the countries.¹² This paper focuses on the first of these conditions. Its aim is a new evaluation of the technical side of the projection of autochromes and a definition of the kind of photographers who were able to use it to their advantage. The focus thereby lies on British photography occasionally adding sources from other countries. By considering sources from a broader time frame, beginning with the advent of the autochrome on the market in 1907 and ending with its decline in the 1930s, the author will evaluate the difficulties and the solutions proposed to solve them. The role projection played in the propagation and pervasiveness of autochromes shall be newly considered based on this study. Here, Henry Essenhigh Corke will be examined in detail as an example of a photographer who used autochrome projection successfully in the eyes of photographers, photography enthusiasts and lay people.

In the beginning there was enthusiasm

With the launching of the autochrome plate, the Lumière brothers made colour photography a medium that was available to the masses for the first time – if they were able to afford it.¹³ The autochrome was a sensation that stirred an immense amount of interest especially in the first months of its availability. At the time, one enthusiastic prophecy as to the change these

9. The notion of the amateur varies in its usage both in the historic sources and in research publications. In this context, it comprises all photographers who neither seek financial profit nor practice photography full-time. As Franziska Maria Scheuer recently pointed out, a new evaluation of the term and its different meanings would be highly desirable: Scheuer 2012 (reference 7), 78 reference 22.

10. In her comprehensive account of the history of colour photography, Pam Roberts specifically describes this problem and its consequences for the use of the autochrome by artist-photographers: Pam Roberts, *A Century of Colour Photography. From Autochrome to the Digital Age*, London: Andre Deutsch 2007, 30-31.

11. This can be seen in the sources from British photographic journals quoted below that often refer to or advertise foreign improvements and devices.

12. Pictorialists in Britain did not use projection presumably for fear of being connected with less serious amateurs. In France this fear was apparently not prevalent. Here, the art collector and photographer Antonin Personnaz used

projection as his sole form of dissemination, see: Boulouch and Gisinger 1999 (reference 6), 56. Other sources suggest that the projection of autochromes was more widely spread in France than in Britain. The French photographer Albert Londe, whom Boulouch and Gisinger refer to for the title of their essay (see reference 6), writes in a later essay: "Dans toutes les sociétés de photographie, les projections en couleurs ont obtenu un succès éclatant et contribué à élever le niveau de la production des amateurs.": Albert Londe, 'Compte rendu du banquet commémoratif du 25e anniversaire de la fondation de la Société', reprint in: Chabert, Jones and Troufléau, *La République des amateurs. Les amateurs photographes autour de 1900 dans les collections de la Société française de photographie*, Paris: Éd. du Jeu de Paume 2011, 12 (originally published in: *Bulletin de la Société d'excursions des amateurs de photographie*, 1912, 87-92). It seems that, while the techniques were presumably the same, there were national differences in the use of projection that would constitute an interesting field for further research.

13. Although the prices varied between the countries and over time, autochromes generally cost four times the price of monochrome plates. colour plates would bring about exceeded the next. It is in this spirit of the dawn¹⁴ of another era in photography that commentators suggested projection to be the perfect way of presenting autochromes, even though the problems related to this endeavour were already becoming apparent. The *British Journal of Photography* (BJP), for instance, exploits the handicap that autochromes are unique transparencies to stress their predestination to be projected: "The fact that the starch-grain process is only capable of yielding transparencies and not paper prints is one which necessarily limits its applications; but in the important side of amateur photographic work, slide-making, this, so far from being a drawback, is exactly what is wanted." Some sentences later the anonymous author states that autochromes "make the most effective slides we have ever seen."¹⁵ This enthusiasm can also often be found in later sources. But articles published in the following years announcing new solutions to the ever-present heat problem suggest a different reality. While optimism was fuelled with every new hope of solving this problem, the innovations never fully satisfied the expectations.

Seeking Solutions

The perpetual search for improvements in autochrome projection shall be reconstructed by way of sources dating from the years of the autochrome. The proposed solutions approached the difficulties from two angles; the angle of the projector and the angle of the screen. The latter focussed on improvements dealing with the enforcement of the light reflected by the projection screen. This method aimed at reducing the needed light intensity by modifying the screen. The varieties range from coating the screen, over back-projection to screens made of glass beads. All these methods did not meet the requirements as the different adaptations of the screen all led to a limitation of the viewing angles. The same was true of the glass bead screens.¹⁶ These methods admittedly did help by lessening the amount of light necessary for the projection but they restricted the size of the audience to such an extent that they were not suitable for public events such as lectures for photographic societies or clubs where the audience could not be limited to a 90-degree cone.

The alternatives to modifying the screen were adaptations of the projectors. Two paths were pursued here to solve the problem of overheating. On the one hand, there was the alteration of the plate to be projected and, on the other, there were special projectors manufactured solely for the purpose of autochrome projection. In the first category, initial suggestions were to varnish the plate,¹⁷ a path that soon proved to be unsuccessful.¹⁸ Reinforcing the plates by

^{14.} These words have been used before to describe the effect the advent of the autochrome had. In 2007, the National Media Museum in Bradford (NMeM) launched an exhibition celebrating the 100 years anniversary of the autochrome called *The Dawn of Colour.*

^{15.} Anonymous, 'Autochrome Plates for Lantern Slides', in: *Photography*, vol. 24, no. 979, 1907, 136.

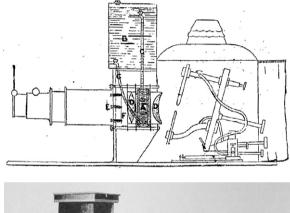
^{16.} According to Palme, glass bead screens and rear projection limited the viewing cone to 90, metallic screens even to 30-45 degrees: Palme (reference 5), 3. A detailed proposition of metallic screens can be found in: Dr. H. Lehmann, 'Highly Reflecting Lantern Screens for Autochromes and Other Projections', in: *British Journal of Photography (Colour Photography Supplement)*, vol. 56,

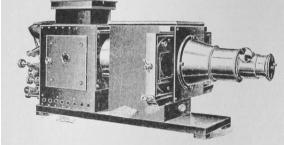
^{1909, 44-47.} The comment by Arthur von Hübl published directly below this article provides the limitations of the viewing angle these solutions lead to. With Lehmann's screens only 10 to 20 per cent of the audience view the projection in full strength. See: Hübl, 'Untitled', in: *British Journal of Photography (Colour Photography Supplement)*, vol. 56, 1909, 47.

^{17. &#}x27;Autochrome Plates for Lantern Slides' 1907 (reference 25), 137.

^{18.} In an article published in 1908, this technique is described as increasing the problem instead of lessening it: Anonymous, 'The Autochrome in the Projection Lantern', in: *The Amateur Photographer*, vol. 47, no. 1229, 1908, 392. The same opinion can be found later in the German photographic press: F. Lossen, 'Zur Farbenplattenprojektion', in: *Photographische Rundschau und Mitteilungen*, vol. 62, 1925, 425.

adding a cover glass, a technique the British expert in photographic processes John McIntosh apparently tried, also seems to have been unsuccessful. The Austrian general and chemist, Arthur von Hübl, who published the German standard work on autochrome photography in 1908, suggested the use of glycerine.¹⁹ This practice seems to have yielded good results but was deemed to be too risky.²⁰





None of these methods helped to solve the problem permanently as can be determined from later announcements of special projectors trying to minimize the heat production. Two methods were employed in this field. Some projectors used water cooling; others tried to distance the slides from the condenser. The first method shall be exemplified here by way of the Beard Autochrome Lantern that was introduced in 1912 (fig. 1). As can be read in the press announcement, this device is specially fitted to be "capable of taking the largest arc lamp" and equipped with a water cell (A) between the two lenses to absorb heat.²¹ A further water tank (B) ensures the circulation of a greater amount of water to and from the cell to prolong the cooling effect. Although potentially a good solution, this system proved to procure unwanted side-effects for reasons that will be elaborated later. The second possibility tried to prevent overheating was additional air cooling. One lantern using this system was the Frigida by Massiot (fig. 2) that divided the lantern into a condenser unit that was spatially separated from the lantern unit.²² But the problems in autochrome projection remained regardless of such inventions as can be read in sources from the last decade of the autochrome, the 1930s. They give evidence of the difficulty the projection of autochromes still implied at this time.

Figure 1 Beard Autochrome Lantern, Illustration from the British Journal of Photography, vol. 59 no. 2708, 1912, 250.

Figure 2 Frigida by Massiot. Illustration from the British Journal of Photography (Colour Photography Supplement), vol. 8, 1914, 40.

The problem remains

In an article on the "Projection of Screen-Plate Transparencies" published in 1933, A. Palme²³ holds the difficulties of autochrome projection responsible for the fact that "the public in general, the vast and ever growing army of amateurs, took no particular interest in these plates".²⁴ Particularly projectors using water tanks, which the author identifies as the method "more generally used", caused a variety of side-effects. Apart from problems of leakage they added to the visual experience in their own way: "Invariably after some fifteen minutes' running, the audience was pleasantly amused by a steady downpour of what appeared like rain

19. A[rthur Freiherr] von Hübl, 'Zur Praxis der Photographie mit Autochromplatten', in: *Wiener Mitteilungen aus dem Gebiete der Literatur, Kunst, Kartographie und Photographie*, vol. 172, 1907, 393.

20. As this technique required the autochrome to be soaked in glycerine and water, this method was deemed very risky "from the point of view of the preservation of the autochrome": 'The Autochrome in the Projection Lantern', 1908 (reference 18), 392.

21. Anonymous, 'The Beard Autochrome Lantern', in: British Journal of Photography, vol. 59, no. 2708, 1912, 250.

22. Anonymous, 'A Lantern for the Projection of Autochrome Transparencies', in: *British Journal of Photography (Colour Photography Supplement)*, vol. 8, 1914, 40.

23. The author, given by the BJP as "A. Palme", is very probably the American photographer Arthur Palme (died 1949), as the article in question was first published in the *American Annual of Photography* in 1933. Arthur Palme can be found regularly in the American photographic press during the first half of the 20th century.

24. Palme 1933 (reference 5), 3.

drops falling down across the picture on the screen. This was caused by the water in the cell segregating bubbles, which first clung to the walls of the cell, and then suddenly rose to the surface. Occasionally the projectionist took a pencil and stirred the water around in the cell, a performance which was stunning to watch on the screen."²⁵ In retrospect, all the methods employed to lighten the task of autochrome projection failed. Still, the author once again proposed a new device in 1933: the electric projection lantern using a propeller to establish a cooling fan. This system may have been the solution, but it arrived too late to have an effect on the usage of the autochrome. In 1936, the Kodachrome colour transparency roll film entered the scene and soon put the autochrome and its later varieties²⁶ out of the market.

The heat problem had, of course, consequences for the organisation of autochrome presentations making it necessary to advance from one image to the next in a shorter time in order to reduce the risk of damage. The advised time varies between twelve and thirty seconds.²⁷ One has to take into account that this time frame was considered to be short and perceived as a disadvantage that the different solutions presented above sought to counteract. For photographers projecting autochromes the time limit meant that they needed more autochromes for a lecture of the same duration than if they had used monochromes.²⁸ Furthermore, sources confirm what can be deduced logically: errors on the plates become more apparent when magnified through projection.²⁹ Therefore, only autochromes of the highest quality, those that had been correctly exposed and developed, could be used. This fact presents further challenges to the photographer and it increases the amount of autochromes the photographer needed to choose from.

It is clear from these sources that projection was not a tool for the average amateur. On the contrary, its sheer difficulty restricted it to a small group of autochrome experts. What is more, projection did not further the use of this particular colour process. There were, of course, successful lantern evenings with autochromes and these, admittedly, may have done their share to inspire others to use the process. The practice of projection, however, as Palme states "discouraged many amateurs and lecturers from the more general use of photographs in natural colours."³⁰ This view on the projection of autochromes asks for a new evaluation of those photographers that were indeed able to project autochromes successfully.

25. Palme 1933 (reference 5), 3.

26. In 1929, the Lumière Company introduced a variation on the autochrome called Filmcolor that replaced the glass base with sheet-film. Three years later, it introduced Lumicolor on roll film, but both variations – although on the market until the 1950s – could not compete with Kodachrome: Gert Koshofer, *Farbfotografie. Band 3: Lexikon der Verfahren Geräte und Materialien*, Munich: Laterna Magica 1981, 66 no. 355 and 90 no. 586.

27. The article announcing the *Frigida* lantern by Massiot quotes an amateur to propose a maximum of twelve seconds for the single autochrome to stay in the lantern: 'A Lantern for the Projection of Autochrome Transparencies' 1914 (reference 22) 40. This time frame can be seen as the extreme end of the time restriction and serves the advertising aim of the article introducing the

Frigida. Other sources talk of 30 seconds as a sensible (Andrew Marshall, 'Lecturing with Colour Slides', in: *British Journal of Photography (Colour Photography Supplement)*, vol. 10, 1916, 115) or maximum time (Robert M. Fanstone, 'Colour Slides for Projection', *British Journal of Photography (Colour Photography Supplement)*, vol. 28, no. 327, 1934, 2).

28. For instance, Henry Essenhigh Corke used about seventy colour slides (autochromes and Thames plates) for a lecture presented at the RPS in 1910, see: Henry Essenhigh Corke, 'Screen-Plate Colour Work', in: *The Photographic Journal*, vol. 50, no. 1, 1910, 6.

29. Fanstone 1934 (reference 27), 1.

30. Palme 1933 (reference 5), 3.

A small circle of experts

Obviously, autochrome projection was too expensive given the larger number of autochromes needed, its use was too restricted due to the special equipment required and its correct implementation was too difficult for many to achieve.

Still, although by no means extensive, there was a small group of autochromists known for their successful use of projection. The preconditions under which they were able to do so, will be exemplified by the analysis of one photographer, who became one of the best known autochrome photographers in Britain and who started his career with very successful autochrome projections.



Figure 3 Henry Essenhigh Corke, Self portrait, reproduced in: Effets d'Éclairage dans le Portrait, Paris: Charles Mendel (ed.), ca. 1910.

Henry Essenhigh Corke: Professional photographer and amateur botanist

The photographer I am referring to is Henry Essenhigh Corke (1883-1919; fig. 3).³¹ When the autochrome arrived on the English market, Corke was already an established commercial photographer with studios in his home-town, Sevenoaks (Kent), and in London (Victoria Street).³² He became a Fellow of the Royal Photographic Society (RPS) in 1908 and was, as the obituary published in the BJP puts it, "a prominent exhibitor at the exhibitions of the Royal Photographic Society and the London Salon."³³ Furthermore, he regularly published articles in the photographic press on different areas of photography. He especially made himself a name as an expert in studio lighting, publishing on this topic not only in the English, but also in the French, specialist journals.³⁴ But he earned his greatest fame with the botanical autochromes that he used in his lectures as well as publications.

Apparently, Corke had been a "keen botanist" from his youth.³⁵ In a lecture given before the RPS and printed in the January issue of the *Photographic Journal* in 1910, Corke states that the advent of this workable one-plate process of colour photography made him try the autochrome at once. It provided him with the opportunity to combine his profession as a photographer with his amateur interest in botany.³⁶ His first subjects in this endeavour were the wild growing flowers of his home region. As can be seen in figure 4, he photographed his specimens not isolated in front of a neutral background but in their natural environment. These colour photographs are publically mentioned for the first time in June 1910, when the

34. Henry Essenhigh Corke, *Effets d'Èclairage dans le Portrait*, Paris: Charles-Mendel ca. 1910. Taking into account the obituary mentioned above, it seems that his technique for producing firelight effects in studio portraiture was especially successful: 'Death of Mr. H. Essenhigh Corke' 1919

(reference 33), 115,

36. In these lectures, Corke by no means used autochromes exclusively. As already indicated, his attention to autochromes was not undivided, but it was the process he used consistently and therefore the most. In his lecture held in 1910 he gives an evaluation of the Autochrome, Omnicolor, Aurora and the Thames Plate: Corke 1910 (reference 28), 4-9. He used the first and last of these four processes to illustrate a lecture on flowers later this year: Anonymous, 'A Colour Lecture on Flowers', in: *British Journal of Photography*, vol. 57, no. 2614, 1910, 444. In 1913, he is said to have illustrated a lecture with autochromes and Dufay transparencies: Anonymous, 'The Croydon Camera Club', in: *British Journal of Photography*, vol. 60, no. 2760, 1913, 257.

^{31.} The only evaluation of his work is: Colin Harding, ''You can almost smell the flowers'. The Autochromes of Henry Essenhigh Corke', in: *The Archive*, vol. 9, 2007, 4-9.

^{32.} The location of his London studio is mentioned in a leaflet advertising his autochrome lectures that is kept at Sevenoaks Library. I am grateful to Denise Larkin of Sevenoaks Library for generously providing me with scans of this leaflet.

^{33.} Anonymous, 'Death of Mr. H. Essenhigh Corke', in: *British Journal of Photography*, vol. 66, no. 3070, 1919, 115.

^{35.} Anonymous, 'Obituary "H. Essenhigh Corke"', in: *The Photographic Journal*, vol. 59, no. 3, 1919, 103.



Figure 4

Henry Essenhigh Corke, Wild Strawberries, c. 1910, autochrome plate 12 x 16,5 cm. National Media Museum Bradford (RPS collection). BJP announces Corke's new lecture *A Hundred English Wild Flowers in Natural Colours* for the photographic season 1910/1911. In this note, the lecture is advertised as "a welcome fixture for photographic societies or as a popular lecture for the public".³⁷ The twofold appeal of Corke's programme is provided by the high quality of his photographs on the one hand and botany as a popular subject on the other. The combination of expertise in photography with a generally appealing topic is the key to Corke's success.³⁸ In the years following his first lecture on flowers in 1910, he adds other cognate subjects to his lecture series.³⁹ As Harding points out, Corke usually first presented a new lecture to the RPS.⁴⁰ This procedure secured him a certain amount of publicity as lectures held before this circle were usually covered both in the

37. 'A Colour Lecture on Flowers' 1910 (reference 36), 444.39. In 191338. As it is for other autochromists e.g. Jules Gervais-Courtellemont and
Helen Messinger Murdoch.40. Hardin

39. In 1913, his newest lecture was entitled *Garden Flowers and Their Wild Relations.*40. Harding 2007 (reference 31), 6.

RPS periodical, *The Photographic Journal*, and other independent publications. Corke was very successful with this approach. As is proven by the front page of a leaflet kept at Sevenoaks Library (fig. 5), Corke was so much in demand as a public lecturer that he was signed on by a London lecture agency. There is no issue date on the leaflet but its earliest possible appearance has to be 1912 as Corke is titled as Fellow of the Royal Horticultural Society which he only became in that year.⁴¹ His admittance into this circle has to be seen as a consequence of his success not only as a lecturer in botany with colour photographs but also as an illustrator of botanical publications that were in great demand. The first volume of Wild Flowers As They Grow (fig. 6), a handbook written by Gertrude Clarke Nuttall and illustrated with Corke's colour photographs, was published only one year after his first lecture on A hundred English Wild Flowers. The title stresses that Corke photographed the flowers in their natural habitat and thereby plays on the notion of "objectivity" already implied by the fact that these photographs register the colour mechanically.⁴² With his approach to botanical photography, Corke underlines the faculty of the autochrome to be regarded as an illusion of reality. As has been pointed out, the autochrome is closely related to the cinematograph in this respect, as both inventions of the Lumières aim at a more complex reproduction of the world.⁴³

As was the case with his lectures, *Wild Flowers As They Grow* was a great success resulting in five volumes and several editions followed by further publications on botanical subjects.⁴⁴ By projecting autochromes and publishing them in botanical handbooks, Corke was able to build a career largely outpacing his earlier recognition. It seems that one of the crucial preconditions for this success is an ample supply of autochrome plates. On the occasion of a meeting of the colour group of the RPS in 1929, the opinion was expressed that Corke was only able to produce such high quality autochromes because they were taken for the publication. As a friend of Corke's stated at this meeting, a large number of autochromes that he had thrown away as he "did not consider [them] to be of a sufficiently high standard" could be found in Corke's darkroom.⁴⁵ This statement links the high quality of Corke's autochrome work directly to a profusion of plates enabled by Corke's publications.

The degree to which his admired results are based on his abilities and his advantageous situation has to remain open to speculation. In the end, it can be stated that Corke was a professional photographer who had the means, the knowledge and the enthusiasm to make autochrome projection his speciality and to use this difficult business to his advantage. In this respect, he stands as a typical example of the great success autochrome projection could provide if used effectively and wisely. Other photographers known to have used autochrome projection

44. Not only the lectures stay within the context of the local fauna, his publications also explore similar topics. For instance, after the five volumes of *Wild Flowers As They Grow*, Corke published a book titled *Wonders of Plant Life* in collaboration with Leonard Bastin: S. Leonard Bastin, *Wonders of Plant Life*, London, New York, Toronto, Melbourne: Cassell and Company, Limited 1912. 45. Anonymous, 'Looking Backward. A Review of Pre-War Colour Work', in: *The Photographic Journal*, vol. 69, no. 2, 1929, 276.

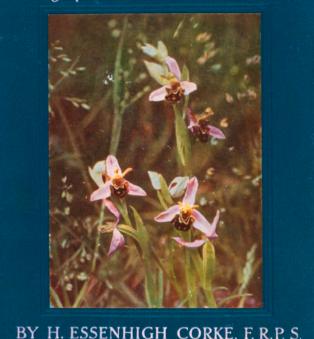
^{41.} Harding 2007 (reference 31), 4.

^{42.} This point cannot be fully explored here. For a detailed analysis of the notion of "mechanical objectivity" as proposed by Daston and Galison see: Lorraine Daston and Peter Galison, *Objectivity*, New York, NY: Zone Books 2008.

^{43.} Boulouch and Gisinger 1999 (reference 6), 51. Jens Ruchatz also establishes a relationship between projection and cinematography in his chapter on "Illusion": Ruchatz 2003 (reference 9), 316. See also: Scheuer 2012 (reference 7), 79.
43. London, New York, Toronto, Melbourne: Cassell and Company, Limited 1912.
45. Anonymous, 'Looking Backward. A Review of Pre-War Colour Work', in: *The Photographic Journal*, vol. 69, no. 2, 1929, 276.



WILD FLOWERS AS THEY GROW Photographed in Colour direct from Net



With descriptive text by

G. CLARKE NUTTALL, B. Sc.

Figure 5 Title page of a leaflet advertising Corke's lectures, 1912 or later. Courtesy of Sevenoaks Library.

Figure 6

Cover of the first volume of Wild Flowers As They Grow by Gertrude Clarke Nuttall, Henry Essenhigh Corke, London 1911.

successfully fit into this pattern. Two of them shall be representatively mentioned here. The French professional photographer Jules Gervais-Courtellement, for instance, gained international fame by projecting autochromes. He opened a so called Palais d'autochromie were he offered his Visions d'Orient, lectures showing autochromes of his travels to the east.⁴⁶ There are others who were able to project autochromes successfully but did not turn it into a profitable business. The Austrian amateur Franz Bertolini, for example, specialised in the autochrome and its projection, even though this brought him neither transregional fame nor prosperity.⁴⁷ He has to be considered as one of the few amateurs who had the ability, the means and the will to specialize on autochrome projection.

jection of autochromes is: Scheuer 2012 (reference 7).

46. The newest publication focusing on Gervais-Courtellemont and his pro- 47. For a detailed examination of his work see: Arno Gisinger, 'Die Welt in Farbe. Franz Bertolinis Autochrome-Photographien', in: H. Platzgummer (ed.), Farben aus der Dunkelkammer. Die Autochrome des Franz Bertolini 1908-1925, Innsbruck 1996, 43-60.

Conclusion

It is clear from the deliberations above that it was a small circle of experts, consisting of professionals and amateurs, who were able and willing to engage in the difficult field of autochrome projection. The immaterial form of presenting autochromes, therefore, was no solution to the problems of the dissemination caused by the materiality of these plates. On the contrary, the density of the starch grain screen rendered projection especially difficult, turning a common form of presenting photographs for amateurs as well as professionals into a demanding and risky business only few were able and willing to adopt. For most photographers, the best way to present autochromes was to show them to only a few people either by simply holding them against the light or by using diascopes, small viewing frames that allowed only one to two persons to view the autochrome at the same time.⁴⁸ The autochrome's inability to be hung on the wall or to be easily presented to a larger group by other means has often been described as a disadvantage that resulted in artists especially withdrawing from the process.⁴⁹

Those photographers who succeeded in autochrome projection, however, were able to gain fame and money. Obviously, the dematerialized showing of autochrome plates via projection appealed to the masses. The best autochrome projections in this respect were able to follow in the line of illusionist spectacles such as the Panorama or stereoscopic projection.⁵⁰ They provided a coloured image of the world heightened both through the seeming absence of the medium onto which it was recorded and the appearance of a luminous image in a dark room.

48. This device, too, had its drawbacks, as reports of the annual exhibition of 50. As Ruchatz states in his already mentioned chapter on illusions, the efthe RPS show. But at least they did not bear any threat to the plates and did not require expensive arc lamps. – Illustrations of a variety of diascopes can be found in: Gert Koshofer, Farbfotografie. Band 1: Alte Verfahren, Munich: Laterna Magica 1981, 54-55.

forts to facilitate stereoscopic projection increased considerably at the end of the nineteenth century. He convincingly links this activity to the vigorous search for a practicable colour photography process at this time subsuming these two fields under a search for illusionist media that includes the invention of the cinematograph: Ruchatz 2003 (reference 9), 316-328.

49. See for instance: John Wood, *The Art of the Autochrome*, Iowa City 1993, 35; and: Roberts 2007 (reference 10), 31.

Between Art, Science and Education: The Tradition of Slide Shows at the Belgian Association of Photography (1883–1933)

Amélie Van Liefferinge

A series of recent studies aims at putting inherited practices from the oral tradition of the early cinema back on the agenda.¹ This process is not limited to the moving image but is a component of the practices linked to the use of fixed images at the same time or in a previous period. This field of research remains largely unexplored "from the point of photography."²

Our story will not be chronological. We intend to proceed by making comparisons to bring out similarities and differences, and will permit ourselves to make leaps in time and events. It is not simply a question of positioning a fact – the slide show – in the linear history of photography but of trying to reveal uses of projection that could serve as a model to stimulate considerations on the definitions of a medium in general and photography in particular. If we consider that art can best be defined by its limits, the practices of slide shows within the Belgian Association of Photography (ABP) seem particularly appropriate for achieving this mission.

We could analyse the system of projection by only taking interest in the objects. Each slide could be considered individually in the function of the principally aesthetic interest it arouses in the history of photographic art. We could also concentrate on the works' reception. There is a grey area, which has rarely been the subject of research, between these two poles; an area where the object is analysed as an aid to ephemeral and contextual practices. Our analysis will take place in this in-between space.

According to its statutes, the purpose of the ABP is "purely and simply artistic and scientific."³ How do slide shows meet these objectives?

The material characteristics of slides nourish the debate on their artistic recognition and show the difficulty to situate the slide as an object within the field of artistic creation. A paper print made from the same negative is recognised as a work of art and admitted to the Salon while the glass positive is not accepted.⁴ The criteria for selection do not take the ambiguous nature of the slide into account. The object is judged on the qualities of the projected image itself. The positive qualities attributed to paper (large-format image, simultaneous viewing of the printing, possibility to make comparison) are systematically negatively transposed to the slide (small-format, difficulty of exhibition). Depreciated as an object, only when the glass slide becomes dematerialised when projected does it find a place in the field of art "when its format, created to be projected, appears enlarged, on a screen."5

The place occupied by the projected image can influence the way paper prints are considered. Glass slides are first seen and analysed when projected which can influence the viewer when

Pratiques orales du cinéma. Textes choisis, Paris: L'harmattan 2011. 2. See: Hubert Damisch, 'À partir de la photographie', in: Rosalind Krauss, 5. F.P. 1908 (reference 2), 185. Le Photographique. Pour une Théorie des Écarts, Paris: Macula 1990, 5-11. 3. X, 'Association Belge de Photographie sous le protectorat du Roi. Statuts', Bulletin de l'Association Belge de Photographie (BABP), no.1, January 1889, 7.

1. See: Germain Lacasse, Vincent Bouchard, Gwenn Schepper (eds.), 4. F.P., 'Les diapositives de projection au point de vue artistique', in: Photo-*Revue*, vol.50, December 1908, 185.

SECTION LIÉGEOISE DE L'ASSOCIATION BELGE DE PHOTOGRAPHIE * * *

Sous le Protectorat du Roi

28 AVRIL 1911

Figure 1a, b, c

Programme de la XXIII^e Séance annuelle de projections lumineuses donnée par la Section Liégeoise de l'Association Belge de Photographie, 28 April 1911. Charleroi, Musée de la Photographie.



SECTION LIÉGEOISE DE L'ASSOCIATION BELGE DE PHOTOGRAPHIE * * *

Sous le Protectorat du Roi

AU PROFIT DES ŒUVRES : LES CHAUFFOIRS PUBLICS NNM LES PAUVRES HONTEUX (Concur uns XII). NNNNNNNNNNN

XXIII[®] SÉANCE ANNUELLE DE PRO-JECTIONS LUMINEUSES 28 AVRIL 1911

he looks at the same image at an exhibition:

"It is easier to appreciate, and less dangerous to criticize, the fleeting image of a slide than to judge an art print that has been framed for good. Therefore, we are somewhat bewildered faced with these prints, some of which we have already analysed projected, when we now see them under a different aspect that makes some appear more – and some less – favourable."

The projected slide satisfies the same aesthetic criteria as the print but the illusionistic effects of the projection impress the viewers even more. They would rather see the works individually; this is possible when screened but not at an exhibition where the photographs are part of an ensemble.⁷ Taken together, all of these elements explain the enthusiasm for slide shows.

The educational assets of projecting enlarged images for the public were the reason behind the first uses in the Association.⁸ The ABP acknowledged that photography has "a deep effect on the masses."⁹ Was it a pretence, convention or real concern of the ABP? It is worth investigating this point more closely. Here, we only see the collective from the point of view of the individual, the member. Each member was encouraged "to show his works however imperfect they may be¹⁰ because only when screened could the imperfections in the work be determined."¹¹ This method of teaching through the image made it possible for the individual to improve as a result of the exchange with the other members of the Association. Learning was the most important aspect. On this account, *members' works* were systematically screened

6. L.R.D.T., 'V^e Salon d'Art photographique et 1^{er} Salon d'art rétrospectif organisés par la Section de Liège, au local du Cercle des Beaux-Arts, boulevard de la Sauvenière, à Liège, du 23 avril au 4 mai 1911', in: *BABP*, no.6, June 1911, 227.

7. Joseph De Smet, 'Les Progrès de l'Éducation artistique et la photographie', in: *BABP*, jubilee album 1874–1898, 1898, 77.

8. Slide shows are mentioned for the first time at the ABP in 1883, see: E. L., no.1, January 1894, 7.

'Section de Bruxelles, séance du 14 décembre 1883', in: *BABP*, no.1, January 1884, 12.

9. De Smet 1898 (reference 2), 78.

10. E.L., 'Section de Bruxelles, Séance du 13 février 1885', in: *BABP*, no.2, February 1885, 44.

11. X, 'Section de Bruxelles, Séance du mercredi 6 décembre 1893', in: *BABP*, no.1, January 1894, 7.

PREMIÈRE PARTIE

TRAVAUX DES MEMBRES

- M. André Dasona : L'Ortler.

- M. GRILAIN : Une vague. Etang.
- M VAN BER HORVES : Palais des Doges à Venise. St-Mare Le ravin de Sv. Grand'route à Vieux-Ville. M. UMMELS : Berge paisible. - Chemin couvert. - Brume ma

during the annual public sessions. The beginners rubbed shoulders with the masters. The master is the one who passes on the documentary, ethnographic, geographic interest of his subject through the filter of his personal interpretation and artistic sensibility. Each pupil was encouraged to show his work once a year in order to improve and eventually become a master. The training was both technical and artistic. Photography is considered a science because it is based on the laws of physics and chemistry.¹²Through the slide show, photographic sci-

ence was able to promote photographic art, which was not well-established at the time. The prestige of the colour slide show increased when it was used as an aid for teaching art history. At the time, it was said that the autochrome plate¹³ was capable of rendering the artificial colours of paintings very well, which explains their use in the reproduction of paintings.¹⁴ Slide shows were also used for science teaching. Georges Kemna (1856–1914), professor of science and a member of the Liège section of the ABP since 1898, championed the use of slides in education.¹⁵ In order to be scientifically useful, it was essential that glass slides be precise and detailed. They had to be technically perfect. This technical perfection justified their being shown at the ABP, which considered recreational resources and scientific subjects as the true attractions.¹⁶

The image is the foundation of the system but is only gradually seen; as if being functional obscured its capacity of non-being, of just being there for pleasure. It is the image itself that imposes its aesthetic by the force of its presence. It seems that beauty is a source of pleasure and that this pleasure can be shared: "We held a few intimate sessions and the beauty of our fellow members' works encouraged the section committee to make the public share in the pleasure of knowing those lovely works."¹⁷ Each invited guest is a potential member.¹⁸ Each

12. X, 'Section de Bruxelles. Séance de projections du 14 avril 1889', in: BABP, no. 6. June 1889, 388

13. For further information on autochrome plate, see: Anne Cartier-Bresson (ed.), Le vocabulaire technique de la photographie, Paris: Marval 2008, 240-243.

14. L.R., 'Compte rendu de la XXI^e Séance annuelle de projection donnée dans la Grande Salle du Conservatoire de Musique le Vendredi 2 avril 1909', in: BABP, no.5, May 1909, 213-216.

Photographers in Belgium 1839-1905, vol.1, Antwerp-Rotterdam: C. de Vries-Brouwers 1997, 230.

16. As an example, see: "Dr Delsaux had a surprise in store for us - as an interlude -: the slide show of an open living frog showing its heart beating. We could admire the acuteness and transparency of the slides. (...) Many of them, toned by a special process, had a very attractive effect," quoted in: X, 'Section de Liège, Procès-verbal de la séance du 11 novembre 1891', in: BABP, no.11, November 1891, 906.

17. X, 'Section de Bruxelles. Séance de projections du samedi 10 mars', in: BABP, no.3, March 1888, 133-138.

15. Steven F. Joseph, Tristan Schwilden, Marie-Christine Claes, Directory of 18. For more information on this subject, see: Clément Chéroux, 'Le jeu des amateurs', in: André Gunthert, Michel Poivert, L'art de la Photographie des origines à nos jours, Paris: Citadelles & Mazenod 2007, 255-273.



Figure 2 Léon Morisseaux, Torrent déséché, before 28 April 1911, glass slide 8,5 x 10 cm. Charleroi, Musée de la Photographie.

author is also the spectator of his own images. As Serge Tisseron says: "In the field of photography, consumers of images are often also their creators."19

Annual slide shows

With the introduction of public sessions in 1888,²⁰ the functions of the closed sessions changed and some were now used to prepare those for a wider audience. A jury, made up of ABP members, chose the slides which were to be shown: "We have not only to pay attention to the artistic value, but also the documentary interest, as well to encourage the less skilful members and even, sometimes, to the specific requirements of lectures."21

The fact that, through the show, the slide was able to satisfy various but complementary objectives possibly explains the variety of the programmes of the public sessions of slide shows at the ABP. Each show was composed of the same elements (commentary, images, music), the same sections (members' works, poetic or documentary compositions); we can speak of a pre-established basic structure. Each show became a performance linking elements which were always different and partly improvised. Each show was an event taking place in time. The appearance of each moment of the show also contains its disappearance. The glass slide fits in with a double temporality: on the one hand, that of immobile objects and, on the other, of moving images.

scient, Paris: Les belles Lettres/Archimbaud 1996, 13. 20. X, March 1888 (reference 2), 133-138.

19. Serge Tisseron, Le mystère de la chambre claire. Photographie et incon- 21. J. Servais, 'Séances de projections et Salons de photographie, Association Belge de Photographie Section liégeoise 1889-1908', in: Compendium dated 15 October 1904, Inv. B7011, Liège: Musée de la Vie Wallonne.



Figure 3

Léon Morisseaux, *Au camp. Corso fleuri,* before 28 April 1911, glass slide 8,4 x 9,9 cm. Charleroi, Musée de la Photographie.

Figure 4 Léon Morisseaux, À 600 mètres, before 28 April 1911, glass slide, 8,4 x 9,9 cm. Charleroi, Musée de la Photographie. The ABP's method for selecting the slides reflects the class struggles taking place at the time, which were mainly concerned with expanding the right to vote. The works were usually chosen by a jury made up by ABP members. In 1897 and 1899, the choice of the slides for the annual show was subjected to the members' *suffrage universel*, which did not suit *affreux capacitaires*.²² In 1901,²³ the association again appealed to the selection jury on the pretext that the quality of the works had fallen as a result of *suffrage universel*. Without lingering any further, it would be interesting to see whether the members' ideological positions were reflected in their photographic choices. Were partisans of *suffrage universel* more interested in social than aesthetic subjects?

Each member whose works had been selected for the public session saw his images shown in series. Did the way the slides were shown in series follow the thread of a story? To answer this question, let us analyse a set of images by Léon Morisseaux (1863–1927).²⁴ This group represents the classic structure of the slide shows at the ABP from 1888 to 1933. Eleven works are announced in the program of the annual session on 28 April 1911 (figs. 1a, b, c). The subject remains the subject, without progressing from a beginning to an end (figs. 2 - 4). The information could be completed indefinitely each time a new slide was added.²⁵ However, a visual

22. L.R., 'Compte rendu de la XI^e Séance de Projections donnée par la Section de Liège le 14 avril 1899 dans la Salle des fètes (sic) du conservatoire', in: *BABP*, no.5, May 1899, 304.; L.R., 'Compte rendu de la neuvième séance de projections donnée par la Section de Liège le 23 avril 1897 dans la salle des Fêtes du Conservatoire', in: *BABP*, no.6, June 1897, 392.

23. L.R., Compte rendu de XIII^e Séance de Projection organisée par la Section de Liège, le 19 avril 1901, dans la Salle des Fêtes du Conservatoire, in: *BABP*, no.6, June 1901, 374.

24. Léon Morisseaux (Liège, 1863-Tilff-sur-Ourthe, 1927). Member of the

ABP from 1900 until his death in 1927, in: Joseph, Schwilden, Claes 1997 (reference 2), 289.

25. Here, we would like to transpose the paradigm of *captation/restitution* applied by André Goudreault and André Marion to the articulation of some of the first moving images. When images are "flashed on the wall", without any handling and linking shot, the potential narrative aspect would result from the event or the subject himself, quoted in: André Gaudreault, *Cinéma et attraction - pour une nouvelle histoire du cinématographe*, Paris: Cnrs éditions 2008, 102.

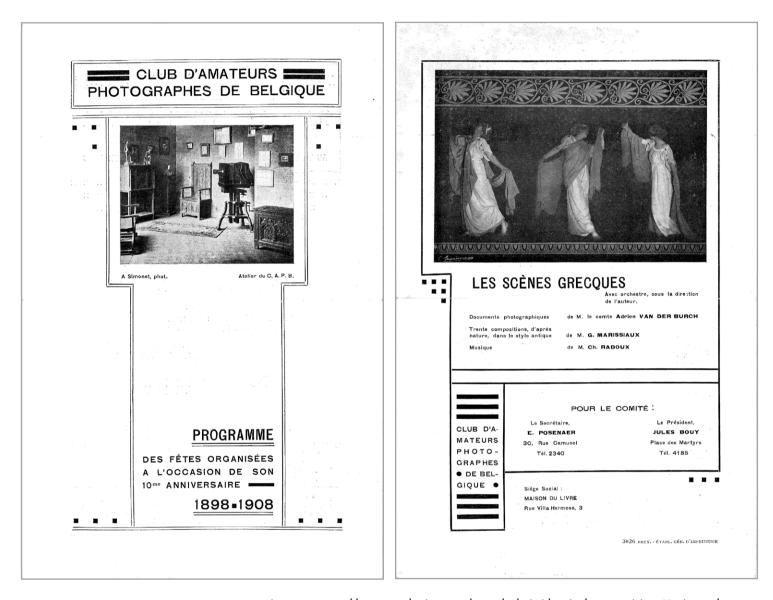


Figure 5a, b Club d'amateurs photographes de Belgique, Programme des fêtes organisées à l'occasion de son 10^{me} anniversaire 1898-1908, 31 March 1908. Charleroi, Musée de la Photographie. connection was created between the images through their identical composition. Horizontal shots are divided into two registers halfway up. The preparation of the slides followed certain standardized criteria,²⁶ which could explain the visual homogeneity of the slide show. Each slide is signed and sometimes titled by its author to distinguish it. According to Maria-Giulia Dondero: "The handwriting on the surface of a photograph, as a calligraphic accent, turns a

26. M. Molteni, 'Projections. Dimension à donner aux épreuves. Manière d'indiquer le sens des photographies. Communication faite à la séance du 3 mai 1889 de la Société française de Photographie', in: *BABP*, no. 8-9, August - September 1889, 679.

multiple autograph into a sole one, changing a single impression into an authentic specimen of the work."27

From 1903, some parts of the programme of the public session took on a more spectacular dimension. These new creations were proposed by the ABP in order to increase its artistic standing. Gustave Marissiaux (1872–1929),²⁸ whose photographs were included in most of the shows, became the spearhead of the institution. Were the photographer's slide sets built on a narrative linking the images? Let us take a closer look at the show called *Scènes grecques*, presented at the ABP for the first time in April 1908.²⁹ It contains a set of 30 slides (figs. 5a, b) numbered from 0 to 29. We notice that the images have two different registers: slides 1 (fig. 6) to 8: music, and slides 11 (fig. 7) to 29: dance, corresponding to the two tempi – chant (mélopée) and dance, as announced in the program. Two views of ruined temples: slides 9 and 10 (fig. 8)] act as a visual interlude, a punctuation or a breath, between the two. These classical views presented in a so-called artistic composition could also have illustrated a lecture on Ancient Greece. One could have given them a documentary interest. The outline of this series of slides could be synthesized in a theme 1 (non-moving scenes of action), followed by a fermata (static landscapes) and a theme 2 reproducing theme 1 (non-moving scenes of action). The change from one theme to the other is neither gradual nor narrative but "the fragmentation and assemblage of the images give a vague idea."30

From 1888, the members' works were shown at the ABP simply as an accumulation of slides but, starting in 1903 a second - more spectacular - part was added to the first section of the programme where the link between the images created a story. On the basis of these two elements, one could be tempted to reverse the dynamic once proposed by Pascal Quignard in literature³¹ to make the fragment tradition, and the narrative modernity, through the projection of slides. From that point of view, tradition and modernity coexisted at the ABP.

One member was made responsible for presenting the slides produced by his peers. He was free to mention the titles or to introduce the subjects in the order he determined in advance.³² Titles have a material and immaterial function. Marked on the slide, they allow the identification of the object and the way the slide has to be shown. At the ABP, the titles interfere with the image. They play an explanatory and descriptive role. They synthesize the image. According to Clive Scott: "A title, and a referential (indexical/iconic) title in particular, is a

Sémiotique de la photographie, Limoges: Pulim 2011, 125.

Maritimes, F), 1929) Member of the ABP from 1895 to 1905, in: Joseph, Schwilden, Claes 1997 (reference 3), 271.

29. L.R., 'Compte-rendu de la XX^eséance de projection offerte par la Section Liégeoise dans la salle du Conservatoire royal de Musique le Vendredi 10 avril 1908', in: BABP, no.5, May 1908, 163.

30. We consider The Scènes grecques through the paradigm of monstration applied by André Goudreault and André Marion to the articulation of some of the first moving images: 'In the paradigm of *monstration*, there is an intention

27. Pierluigi Basso Fossali, Maria Giulia Dondero, Jacques Fontanille, to arrange the display by the mise-en-scene of the subject or a freeze-frame into the simple accumulation or agglomeration of frames. The splitting up 28. Gustave Marissiaux (Marles (Pas-de-Calais), F), 1872–Cagnes (Alpes and the combination of the frames give us a vague idea', in: Gaudreault 2008 (reference 2), 102.

> 31. 'In modern art, discontinuous effect has taken the place of continuous one', in: Pascal Quignard, Une gêne technique à l'égard des fragments. Essai sur Jean de La Bruyère, Paris: Galilée 2005, 24.

> 32. The use of the word 'boniment' is guite common at the ABP. By extension, we call 'bonimenteur' the person who is in charge of the 'boniment' in accordance with the meaning defined in: Lacasse, Bouchard, Schepper (eds.) 2011 (reference 2), 7.





Figure 6 Gustave Marissiaux, Scènes grecques 1, before 31 March 1908, glass slide 8,4 x 9,9 cm. Charleroi, Musée de la Photographie.

Figure 8

Gustave Marissiaux, Scènes grecques 10, before 31 March 1908, glass slide 8,4 x 9,9 cm. Charleroi, Musée de la Photographie. symptom of our anxiety about the gratuitousness of the photographic image. The more exact the title, the more linguistic ballast is provided, the more it can become the image's reason for existing."33 Articulated by the speaker, the titles created a structure for the fast moving mass of the members' works that would have otherwise appeared without any inherent logic.³⁴ Occasional experiments were made with using many of the technical resources of the slide show: titles, superimposed on the slides, made the lecture superfluous.³⁵

Glass slides are visually homogeneous. We can explain this homogeneity by a double standardization: the standardization of the objects used in the projection and that of the subjects of the slides (travel views, studies, and genre scenes). What changes is the status of the slide shows. When integrated into a show, slides take on an artistic value; as a visual aid to lectures,

33. Clive Scott, The spoken image. Photography and language, London: 35. It is an isolated attempt, see: L.R., 'Compte-rendu de la XIX^e séance Reaktion Books 1999, 64.

34. About 150 to 180 slides were shown per session, see: Servais 1904 (reference 2), n.p.

de projection donnée par la Section liégeoise dans la Salle des Fêtes du Conservatoire royal de musique le vendredi 12 avril 1907', in: BABP, no.5, May 1907, 208.



they produce a documentary impact. The programme of the public sessions was established with the aim of creating a balance between the two orientations. Lectures could be the subject of a show.³⁶ Before TV news programmes existed, discussions and lectures dealt with topical affairs.³⁷ Photographic documents, combined with scientific information and personal reminiscences, strengthened, conveyed and illustrated the speaker's comments. In André Rouillé's words, photography cuts a level of immanence into the world of images: this creates the foundation of its documentary strength."38 The documentary ability of the image changes according to the credibility it is given. And this credibility depends on the context in which the image is seen. The photographic image would function as a mediator between the infinite external world and the limited inner one represented by the family sitting room or an association. "Left to some bold guys' care, photography is going to make a trip around the world and bring us back the whole universe in a port-

Figure 7 Gustave Marissiaux, Scènes grecques 11, before 31 March 1908, glass slide 8,4 x 9,9 cm. Charleroi, Musée de la Photographie.

folio without us leaving our seats."³⁹ The image does not only have the mission of providing information: due to its constituent ambivalence, photography is helped by the text. At the time of projection, the text becomes the lecture.

Before the public session, the slide lecturer filed the images to be projected and wrote the text to be read as they were shown.⁴⁰ The views formed the point of departure for the narrative. The organisation of the views⁴¹ proposed by the slide lecturer seems to have been as important as the lecture itself and determined the viewer's interest in images.⁴² Affinity is given

36. M. Pauwels, 'Section d'Anvers. Soirée du 4 décembre 1922. Conférence de M.Ch. Chargois', in: *BABP*, no.1, January-March 1923, 37.

37. *Voyage au Congo*, in: L.R. May 1899 (reference 2), 304; *Le Transvaal: scènes de la guerre anglo-boer*, in: L.R., Compte rendu de la XII^e séance de projections offerte le 27 avril 1900 par la Section de Liège dans la salle des fêtes du Conservatoire, in: *BABP*, no.6, June 1900, 374; *Le travail de la Pierre bleue au pays de Liège*, in: Intérim, 'Section de Liège. XXII^e séance annuelle de projections. Vendredi 15 avril 1910', in: *BABP*, no.5, May 1910, 204-205.

38. André Rouillé, *La photographie. Entre document et art contemporain*, Paris: Gallimard, Folio Essais 2005, 69.

39. Louis de Cormerin, 'À propos de Égypte, Nubie, Palestine et Syrie de Maxime

Du Camp', in: *La Lumière*, 1852, quoted in: Rouillé 2005 (reference 2), 124. 40. Servais 1904 (reference 3), n.p.

41. The filing 'without any given order, as (...) in the *Salon ... d'art*!' predominates, in: L.R. May 1899 (reference 3), 303 and L.R. June 1901 (reference 2), 376. Other variants are observed as the filing by thematic likeness, in: L.R. June 1897 (reference 2), 392; geographical likeness 'interrupted by series of artistic pictures (*tableaux*)', in: L.R., 'Compte rendu de la XVI^e séance publique de projections organisée par la Section de Liège dans la grande salle des fêtes du conservatoire, le 22 août (sic) (22 April, author's correction) 1904', in: *BABP*, no.7, July 1904, 351-352.

42. A.G., 'Section de Gand. Séance de projections du 29 janvier 1903', in: *BABP*, no. 3, March 1903, 166.

more importance than a sequence of the works organised by authors. It is interesting to note that the author of the views often remains anonymous.⁴³ The slide lecturer was responsible for the operation as he was the person who signalled the projectionists to change the slides and in this way regulated the duration of the show.⁴⁴ This made him a real performer. This free structure of the slides contrasts with the fixed structure of images on paper. In the programmes announcing the slide shows, the authors are named alphabetically. The public knew whose slides it was going to see but not in which order.

During public sessions, some compositions were given special treatment. Let us take Venise, Évocation de la Cité des Doges, La Bretagne and Scènes grecques, Jardins d'Italie, or Les Quatre-Saisons as examples. The different titles do not refer to photographs but to musical poems. Through the extension of images, they refer to slide shows. The titles functioned more as captions: "the caption never coincides with the image, never exists in the same time: it either precedes the image (...) or succeeds it, acts as a reaction. Consequently, meaning itself is displaced, removed from the image: the image is either only part of a metaphor or instigator of a presiding voice which, in return, endows it with a justification."45

The viewer is first of all the listener of a show full of imagery: musical poems, written for an orchestra with solos and choruses, are performed while slides scroll on the screen. Images work in a different way than the poem. They can illustrate it, as in Les Quatre-Saisons and Jardins d'Italie, or put it in a context, as in La Bretagne where they play the role of a decor. This modus operandi, where the image is created after the text, needs to be qualified. In Venise, Évocation de la Cité des Doges, we can notice a double influence movement between the poem and the slides. In the first instance, the photographer adapts himself to the poem. His images 'embellish and enlarge^{™6} the four poetic and thematic parts. And then, the poet adapts himself to the new slides made by the photographer. Poetic themes are embellished and combined in six parts instead of four.47

The central place granted to music in these particular compositions contrasts with its usual use in the public sphere. It creates a transition between two slide sets, two programme parts or comments by the lecturer.⁴⁸ The audience is constantly appealed to, its attention constantly renewed. The show is complete and continuous until the curtain falls.⁴⁹ Public slide shows remind one of synesthetic associations in art: "the magic of sounds, united to thoughts and to poetic rhythm, are able to prepare the listener for enjoying the image appearing to his view. A delicious art impression emerges from the intimate union of musical harmonies, from the poetic phrase and form, embellished by light effects."50

43. X, 'Section de Bruxelles, séance du 10 octobre 1884',

- in: BABP, no.10, October 1884, 45.
- 44. Servais 1904 (reference 4), n.p.
- 45. Scott 1999 (reference 2), 53.

par la Section de Liège dans la Grande Salle des Fêtes du conservatoire le 50. L.R. May 1906 (reference 2), 212. 30 avril 1903', in: BABP, no.6, June 1903, 375.

47. L.R., 'Compte rendu de la XVIII^e Séance publique de projections organisée par la section de Liège dans la grande salle des Fêtes du conservatoire le 6 avril 1906', in: BABP, no.5, May 1906, 211.

48. L.R. May 1899 (reference 4), 305; L.R. June 1903 (reference 2), 375. 46. L.R., 'Compte rendu de la XV^e séance publique de projections organisée 49. There is proof that this was used in 1888: X March 1888 (reference 3), 138. The intermediality of slide shows at the ABP can also be observed in the integration of animated images. In 1895⁵¹ the Frères Lumière's cinematograph was presented to the ABP members for the first time outside of France. That event was symptomatic of the interest for moving images shown by the association. We have to understand this interest from the viewpoint of non-moving images. When non-moving and moving slides could be combined during the same show⁵² it was for the purpose of increasing the enthusiasm for cinematography.⁵³ The exchanges were not one-way. Some colour slides were shown while a roll of film was being rewound. The contrast to the black-and-white film that had just been shown impressed the audience.⁵⁴ The ABP seemed so conscious of the attractive power of moving slides that it even used the word "moving salon"⁵⁵ to characterise its annual sessions of non-moving slide shows. In 1933, the association decided to add and of cinematography to its original name as an indication that amateur cinematography had achieved significant importance.⁵⁶ This is an appealing topic, but goes beyond the scope of this article.

51. X, 'Assemblée générale extraordinaire tenue à Bruxelles le 10 novembre 1895', in: BABP, no.12, December 1895, 732-733.

52. X, 'Section de Louvain. Soirée de Projections et de Cinématographie du 11 December 1895, 762. mars', in: BABP, no.4, April 1902, 267; X, 'Section d'Anvers. Séance publique de projections et de cinématographie', in: BABP, no.5, May 1902, 298.

53. 'The MM. Lumière' cinematograph will bring slide shows a new element of success. We hope they will add someday the colours and the entire

stereoscopic effect the lack of which is hardly noticed', in: A.Godérus, 'Le cinématographe de MM. Lumière frères à Lyon', quoted in: BABP, no.12,

54. X April 1902 (reference 2), 268.

55. L.R. June 1897 (reference 3), 392.

56. BABPC, no.3, March 1933.

The Vampire and Marilyn – Some Thoughts on a Photographic Concept of Being

Thomas Freiler

The major anniversaries of the death of two very different people were given a great deal of attention by the press and other media in 2012. The year marked the fiftieth anniversary of the death of Norma Jeane Baker (born on 1 June 1926 in Los Angeles California; died 5 August 1962 in Brentwood, California) – better known under her stage name of Marilyn Monroe – and the hundredth of the writer Bram Stoker (born on 8 November 1847 in Marina Crescent near Dublin, Ireland; died on 20 April 1912 in London, England). In the case of Bram Stoker, the media reports concentrated almost exclusively on his most successful novel *Dracula* that was published in London in 1897 and its main figure Count Dracula, the vampire who provided the book with its title.

The following considerations and trains of thought, as well as the title of this contribution, developed out of this coincidence, out of this chance collage of media attention, that created a link between the vampire created by Bram Stoker and Marilyn Monroe and her film roles and images in the media in 2012. It is my aim to put these on paper here and use them to stimulate thoughts on photography and considerations on the relationship between photography and us, the audience that views images and in this way become delighted, seduced and sometimes even haunted. Could there be a connection between photography and the figure of the vampire created by Bram Stoker, a possible relationship or even some form of correspondence?

Bram Stoker organised his novel "Dracula" as a meticulous collection of documents, of diary entries, transcribed phonographic notes and articles that reported on the discovery, struggle against and ultimate destruction of a creature that only existed in superstition in the 19th century; a vampire, a centuries-old undead person, who intended to move from his castle in one of the most remote corners of Europe to the faraway, modern metropolis of London.

Presented as a factual account, Stoker went as far as to include precise railway timetables with arrival and departure times in order to create the impression of authenticity. In the novel, communication is carried out by letter and telegraph, observations and events taken down stenographically or in handwriting, and acoustical notes made with the help of the phonograph, which had actually only been introduced shortly before the novel was published, using wax cylinders and subsequently all of this documentation was typed – with three carbon copies – on a typewriter. Photography is only briefly mentioned in passing as one of the standard technologies of the period that was suitable for documentation at the beginning of the book in the chapter called 'Jonathan Harker's Journal': "I could not enter it, as I had not the key of the door leading to it from the house, but I have taken with my Kodak views of it from various points."¹ In contrast to the other technologies mentioned above, photography was not used to underline the plausibility of events.

1. Bram Stoker, *Dracula*, London: Four Corners Books 2009, chapter II, 'Jonathan Harker's Journal', 42.



Figure 1 Thomas Freiler, "Ultra" Rapidplatte, lichthoffrei, 2012, glass negatives in cardboardbox, width x height x depth: 20 x 5 x 10 cm. In Bram Stoker's *Dracula*, Dr Seward notes: "We thought of her dying whilst she slept And sleeping when she died",² when Lucy Westenra, the first victim, finally departed this life after repeated vampire bites and continues with the comment made by Van Helsing that this is not the end but only the beginning.

2. Stoker 2009 (reference 1), chapter VII 'Dr. Seward's Diary', 220.

In Marilyn Monroe's case, Andy Warhol started his famous series of silk-screen prints just one month after her death. He actually used a portrait photograph of Marilyn Monroe taken by Greg Norman to be used for promoting the film *Niagara* as his model. In this film, Monroe portrays a vamp– a female form of vampire – who causes the downfall of men.

The 50th anniversary of her death in 2012 provided an opportunity for series of photos in newspapers and magazines, photo exhibitions and reruns of her films in cinemas and on television (the film *Niagara* mentioned above was shown on the German-language TV channel *3sat* on 12 August 2012 as part of its special programmes on Marilyn Monroe).³ There she was again: Marilyn, the twentieth century's female sex symbol, still seductive and blonde although she had been dead for 50 years. But just who or what was "she" or "it" when we take a closer look? In his *Philosophical Investigations*, Ludwig Wittgenstein points out that:

"197. Perhaps the following expression would have been better: we view the photograph, the picture on our wall, as the very object (the man, landscape, and so on) represented in it. 198. This need not have been so. We could easily imagine people, who did not have this attitude to such pictures. Who, for example, would be repelled by photographs, because a face without colour and even perhaps a face reduced in scale, struck them as inhuman."⁴

This appears feasible and, with this consideration, Wittgenstein brought up the automatic equalisation of the picture and pictured. However, things are different in our case with our everyday use of photographic images and when we think about pictures of Marilyn our thoughts are more in line with what André Bazin wrote in 1945:

"Only the photo can give us an image of the object that is capable of satisfying the longing for more than just an approximate representation of the object in our subconscious: for the object itself, without any temporal limitation. The picture can be blurred, distorted, colourless, without any documentary value; it makes an effect through its production, through the ontology of the model: It is the model."⁵

After 1839, portrait photography provided people with the possibility of keeping their loved ones near to them after their death for the first time. It became so common for family members to take corpses to the photo studio for one last portrait that the Austrian authorities finally passed a law forbidding this. On the other hand, photo studios advertised that they were capable of making especially lifelike portraits of the dearly departed and in this way help alleviate the sorrow over the loss. They promised to give the dead the appearance of being alive similar to that of Lucy Westenra, the vampire's victim, in Bram Stoker's novel (see above: "We thought of her dying whilst she slept And sleeping when she died"). In the *Dracula* novel, Van Helsing feels that it is important to convince his comrades in arms against the vampire that what seemed to be an intact, apparently alive, body was not that

5. André Bazin, 'Ontologie des fotografischen Bildes' (1945), in: Wolfgang Kemp, *Theorie der Fotografie III*, 5, Munich: Schirmer/Mosel 1983, 62f.

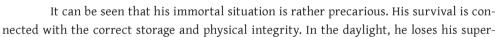
 <http://www.3sat.de/page/?source=/film/163575/index.html> (03.2013).
 Ludwig Wittgenstein, *Philosophical Investigations*, the German text, with an English translation by G. E. M. Anscombe, P. M. S. Hacker and Joachim Schulte, revised 4th edition by P. M. S. Hacker and Joachim Schulte, Oxford: Wiley-Blackwell 2009, 216f.

of a formerly living, beloved person but a different, undead, supernatural being that had to be destroyed before the deceased could find eternal peace.⁶

Just what are we looking at when we see the countless pictures of Marilyn Monroe? Is it Norma Jeane Baker aka Marilyn Monroe, is it a picture of her or an additional person, another person? It is definitely not the one who died in the night from the 4th to 5th of August 1962 in Brentwood, California. One thing is certain; it is a photograph, printed on paper, projected onto a screen or visible on television. It shares this quality with countless other photographic images - so where do we go from here?

Let's go back to Bram Stoker's Dracula. Of course, the character of the count was created by the author for his novel. He determined the person of "Dracula" as a creature defying the laws of nature, morals and the legal code, and outside of time. He lives because he drinks the blood of living people until these die and become the same as he is. He promises ultimate immortality. However, he cannot enter a house unless he is invited to do so. Once invited, he can come and go as he pleases. His victims' initial horror gradually turns into longing and devotion. But Stoker limits the supernatural power of his figure "Count Dracula" to the hours of the night. When his body lies at rest in the coffin, he is defenceless and needs the protection of the darkness and his native soil.

Figure 2 Thomas Freiler, Case Studies, Exposing Fujichrome Provia 100F, 2011.



natural, hypnotising powers and, surprisingly, his reflection cannot be seen in a mirror.

If one considers the characteristics of the vampire in Bram Stoker's novel, it becomes conspicuous that he shares many of them with photographs, especially when projected as moving pictures (the novel was published in 1897, not even two years after the Lumière Brothers' first public film show in Paris).7

Both - the vampire and photograph - apparently have a place outside of time, at the moment of death or because a specific situation, a specific image, was captured

6. Stoker 2009 (reference 1), chapter VII 'Dr. Seward's Diary', 287f. 7. L. P. Clerc, La Technique Photographique, Publications Photographique, Paul Montel, Paris 1934, Notions sommaires de Cenemathographic, 863.





Figure 3 Thomas Freiler, *Marilyn in the mirror,* 2012, filmstill from *Niagara* by Twentieth Century-Fox, 1953, partly projected on a mirrored surface. and fixed at a specific time. The compensation for death, the preservation, is immortality – becoming Dracula's companion or an image in a photograph. However, the photo, the film as a material, is fragile and needs to be handled with care just as the body of the vampire in his coffin is defenceless and unprotected and needs to be kept in a cool, dark tomb.

Just as a vampire cannot be seen in a mirror, a projected image or film can also not be seen in one because a mirror cannot function as a projection surface and finally: Projection is only possibly at night or in darkness; a film can only develop its hypnotic effect at the same time as the vampire is able to rise out of his coffin and that is when we are able to have a rendezvous with Max Schreck, Bela Lugosi, Christopher Lee, Udo Kier^s...or Marilyn Monroe. Could it be that photos and films are attractive companions of the vampire's and we are the servants they have to rely on for their preservation?

8. The four actors all portrayed vampires in films. The Internet encyclopaedia Wikipedia lists more than 500 vampire films for the years between 1909 and 2012.

From Stereoscopy to Tactile Photography

Moritz Neumüller **Andreas Reichinger**

Figure 1 François Willème (studio), Maximilian. Erzherzog von Österreich und Kaiser von Mexiko, Photosculpture, cast bronze 60,7 x 21,6 x 21,6 cm, 1864 (photograph by Jean-Luc Ikelle-Matiba, Bonn). LETTER Stiftung, Cologne. Inspired by a new interest in the physicality of the artwork and our own work with tactile materials for visually impaired exhibition visitors, we propose the prolegomena for a new multisensory discipline, which we call tactile photography. It is based on the principles of stereoscopy and the computer-aided conversion of digital images into reliefs, which can be produced as real objects - on 3D-Printers for example. This new discipline can be especially interesting for visually impaired artists, but is not limited to "disability arts"¹ In this article, we want to show that *tactile photography* connects with a long-lasting interest in enhancing photography with the illusion of depth and physical space, which it shares with multi-photography,² Andrew Davidhazy's peripheral photography (developed in the 1960s), the Lumière Brothers' photostereo synthesis, and with photosculpture.³ Yet, only the latter medium aims at translating photography into tactile sculptural forms. Invented in 1859 by the French sculptor and photographer François Willème, photosculpture is the adaption of photographic



1. According to a generally agreed definition, disability arts is art made by disabled people which reflects the experience of disability, "made with some sort of aesthetic purpose, [...] not a hobby to keep the cripples' hands busy. And it is not therapy." Cf. What is Disability Arts? Allan Sutherland, < http:// www.disabilityartsonline.org.uk/what-isdisability-arts > (15.01.13). 2. Cf. Lars Blunck, 'Chimären im Spiegel. Anmerkungen zur so genannten Fotogeschichte, vol. 39, 1991, 3-16.

Multifotografie', in: Fotogeschichte, vol. 94, 2004, 3-14.

3. Cf. Gunnar Schmidt, 'Die Simultaneität der Blicke. Über ein medientechnisches Dispositiv', in his book Visualisierungen des Ereignisses Kultur- und Medientheorie, Berlin, 2009, 128; Angelika Beckmann, 'Fotoskulptur. Überlegungen zu einem Bildmedium des 19. Jahrhunderts', in:



Figure 2 Raffael's Madonna of the Meadow as a 2.5D textured relief, Tactile Paintings Project by VRVis for Kunsthistorisches Museum in Vienna 2010 (photograph by Stephan Mantler/VRVis – Zentrum für Virtual Reality und Visualisierung Forschungs GmbH). portraits to the construction of three-dimensional portrait-sculptures. The sitter was positioned in a rotunda, surrounded by an array of 24 cameras at fifteen-degree intervals that took simultaneous photographs. These profiles were then transferred by means of a pantograph to a pillar of clay rotating on a turntable. The result was trimmed and touched up by the artist, and then transferred into other materials. LETTER Stiftung's photosculpture of *Maximilian, Erzherzog von Österreich und Kaiser von Mexiko* – apparently made in 1864 – is a good example both of Willème's advanced production process and his clientele (fig. 1).⁴ The entire process was firmly based on the idea that the sum of all its profiles would yield the volumetric whole.⁵ The new medium met with a euphoric reception by some

as it promised "l'immense avantage de la ressemblance vraie"⁶ to the portrayed subject. Others were more reserved and saw it not as a medium of its own value, but as an auxiliary medium for the artistic process, or at best in a "place exceptionnelle" between the two.⁷ *Photosculpture*'s closeness to reality also meant a lack of hierarchy between the more and the less important, an acceptance of nature as-is, without artistic expression;⁸ an *art mécanique* of petrified photography⁹ produced by body-copying-machines (Körperkopiermaschinen¹⁰). Despite technical improvements such as Antoine Claudet's *Photoplastigraphie*,¹¹ *Photosculpture* was too expensive as a means for self-representation and not accepted as an art medium in its own right. Clients preferred to acquire dozens of *cartes de visite* for the same price as one bulky sculpture, and Willème's enterprise lasted only about six years. It was not until recently that *photosculpture* celebrated a comeback, thanks to enhanced body-scanning and 3D-Printing technologies.

Today's rising interest in enhancing purely visual media with multisensory experiences¹² coincides with the promise of 3D printing to transform our contemporary lives and foster "a new industrial revolution".¹³ Apart from industrial and commercial use, there is a

4. This work is owned by LETTER Stiftung, Cologne and will soon be published in detail. The piece is extensively documented in the Foundation's records, which were kindly made available to the authors through the mediation of Uwe Schöql, Vienna. http://www.letter-stiftung.de (15.01.13).

5. Robert Sobieszek, 'Sculpture as the Sum of its Profiles: Francois Willème and Photosculpture in France, 1859-1868', in: *The Art Bulletin*, vol. 62, 1980, nr. 4, 618-622.

6. Ernest Lacan, 'Exposition photographique', in: *La Revue Photographique*, 1863, vol. VIII, 143.

7. Jean-Luc Gall, 'Photo/sculpture', in: *Études photographiques*, vol. 3, November 1997, available at http://etudesphotographiques.revues.org/in-dex95.html) (10.01.13).

8. Schmidt 2009 (reference 3), 120.

9. Cf. A. Hermant, 'La photosculpture', in: *Le Monde illustré*, 31 décembre 1864, 426, cited after Gall 1997 (reference 7).

10. Albert Kümmel, 'Körperkopiermaschinen. Francois Willèmes technomagisches Skulpturentheater (1859-1867)', in: Gundolf Winter, Jens Schröter, Christian Spies (eds.), *Skulptur. Zwischen Realität und Virtualität;* Paderborn, 2006, 191-211.

11. Johann Gottfried Dingler, 'Claudet's Photoplastigraphie', in: *Polytechnisches Journal*, vol. 182, no. XLIV, 1866, 153-155.

12. Elkins summarizes this new interest in the insight that "Seeing is embodied, and it should no longer be separated from touching, feeling, and from the full range of somatic response", yet he also asks for a more rigorous approach when thinking about this materiality, cf. James Elkins, 'On Some Limits of Materiality', in: *ArtHistory, Das Magazin des Instituts für Theorie*, vol. 31, 12/2008 (special issue on 'Taktilität: Sinneserfahrung als Grenzerfahrung'), 25–30.

13. Cf. 'Print me a Stradivarius. How a new manufacturing technology will change the world', in: *The Economist*, February 12-18, 2011.



Figure 3 LD-Converter in the Museum of Technology in Vienna and a 1:50 scaled 3D print of the LD-converter for ArteConTacto, 2011 (photograph by Andreas Reichinger). fast-growing community of people who use 3D printers to produce small series of impressions at home. Today's 3D printers for domestic use can only print in one or two colours, but this might just be a question of time, and there actually are some companies that offer the conversion of digital images into photographic reliefs (such as BumpyPhoto), as well as 3D printouts of full body scans (such as ThreeDee-You).¹⁴

Our own approach, tactile photography, is based on stereoscopy, a technique that has been said to share an *inquietante affinité*¹⁵ with *photosculpture* and is currently celebrating a Renaissance in the entertainment industry with 3D cinema. Stereoscopy has also entered the consumer market, in the form of digital "3D cameras" for photography and video.

Stereoscopy is distinguished by its ability to capture not only colour but also encode the depth at every point, i.e., the plasticity, the surface. Nowadays, computer algorithms can extract this depth¹⁶ and form the basis of our approach. However, current algorithms are not perfect, as our experiments have pointed out: The captured scene has to be sufficiently textured. Single-coloured objects, over- and under-exposure, reflections and transparencies have to be avoided, and a high depth of field should be maintained to get good results.

According to the taxonomy we have established for tactile media,¹⁷ *Tactile Photography* would lie in the continuum between 2-dimensional and 3-dimensional media. We use the term 2.5D, borrowed from visual computing, to denote a bas-relief that raises every point above the

14. "BumpyPhoto specializes in custom-made photo reliefs to bring your photos to life making them memorable and beautiful. Founded in 2011, BumpyPhoto.com operates from Portland, Oregon, USA and London, UK and uses cutting-edge PCT patent pending manufacturing and computer graphics technologies", see: http://bumpyphoto.com (10.01.13). ThreeDee-You, "the global pioneer company of Photo-Sculpture", in Madrid, describes their franchise model this way: "The files acquired at the studio are electronically passed to ThreeDee-You's central office where image post-production will take place and sculptures will be produced, see: http://www.3d-u.com (10.01.13).

15. Michel Frizot and Dominique Païni (eds.), *Sculpter-photographier. Photographiesculpture*, Actes du colloque organisé au Louvre, Éditions Marval/ Musée du Louvre, Paris 1993, 9.

16. D. Scharstein and R. Szeliski. 'A taxonomy and evaluation of dense twoframe stereo correspondence algorithms', in: *International Journal of Computer Vision*, 47(1/2/3):7–42, April–June 2002.

17. Andreas Reichinger, Moritz Neumüller, Florian Rist, Stefan Maierhofer, and Werner Purgathofer, 'Computer-Aided Design of Tactile Models. Taxonomy and Case Studies', in: *Computers Helping People with Special Needs, Lecture Notes in Computer Science*, Volume 7383, 2012, 497-504.



Figure 4 De Krijtberg in Amsterdam in a digital photograph 2010, as a 2.5D textured relief and as a "Tactile Photograph", 2012 (photograph and modelling by Andreas Reichinger).

planar photograph to its extracted height; this is similar to terrain models. In contrast to full 3D, a 2.5D object only works from a limited set of views. 3D features like undercuts or reverse sides are not represented, as is the case in stereoscopy. From the technical point of view, this technique has several advantages over full 3D photo sculptures in data acquisition, storage, computation and production. The absence of undercuts makes them easy to produce (e.g. with simple 3-axis milling machines, or 3D printers), and to reproduce (e.g. using the thermoform process). Furthermore, this medium allows the photographer to point a (twin-lens) camera at the world, using its photographic (and stereoscopic) virtues, instead of having a virtual eye spin around an object to produce a shadow-less scan linked to the "Zentroramatisches Dispositiv".18 Photographers including Jacques Henri Lartigue have used stereography on a large scale (there are about five thousand glass stereo negatives in his archives, the vast majority taken between 1905 and 1928) to produce some of their most famous images¹⁹ and cities such as Paris have been photographed in "3D" for the last 150 years²⁰.

Tactile photography, as we envision it, should be conceived as an easy-to-use and affordable technique based on the idea of a 3D capturing system capable of recording depth information together with a conventional digital photograph. It should be an open field of research and artistic practise, rather than a paid service based on franchising, and accessible to everybody, including blind and visually impaired photographers.

This last point could have been the first one mentioned, as the idea for tactile photography was born of our experience with tactile representations for museums, such as the Kunsthistorisches Museum in Vienna in the project *Tactile Paintings*,²¹ and the adaptation of exhibitions by ArteConTacto.²² Multi-sensory approaches in the field of photography include,

18. Schmidt 2009 (reference 3), 128.

21. Andreas Reichinger, Stefan Maierhofer, Werner Purgathofer, 'High-Quality Tactile Paintings', in: *ACM Journal Comput*. Cult. Herit. 4, 2, article

5, November 2011. VRVis (Zentrum für Virtual Reality und Visualisierung Forschungs GmbH) is Austria's leading research company in the field of Visual Computing. Together with the Institute of Computer Graphics and Algorithms at the Vienna University of Technology and the Visualization Commission of the Austrian Academy of Science VRVis forms one of the largest computer graphics research groups in Europe. Project website: http://www.vrvis.at/ projects/running-projects/tactile-paintings> (15.01.13).

22. Project website: < http://www.artecontacto.org> (15.01.13).

^{19.} Interview with Bill Hibbert, in 2007, published at http://www.galeriepho-to.com/jacques-henri-lartigue-stereo-photography.html) (10.01.13).

^{20.} Françoise Reynaud, Catherine Tambrun, Kim Timby (eds.), *Paris in 3D. From Stereoscopy to Virtual Reality 1850-2000*, Exhibition Catalog, Paris: Musée Carnavalet 2000.

on the one hand, the conversion of photographs for a blind public and, on the other, the art produced by visually impaired photographers.

One example of the first group can be seen in James Patten's attempts to directly convert brightness information into height using a laser to carve wood and artist Lisa J. Murphy's Tactile Mind Book, a collection of erotic photographs created as touchable reliefs using a thermoform process.²³ Perhaps the best known initiative is Alain Mikli and Yann Arthus-Bertrand's joint exhibition Touch and See,²⁴ where several examples of Arthus-Bertrand's famous aerial photographs were converted into bas-relief largely based on brightness and then carved into cellulose acetate.25

Photographic production by visually impaired artists has increased considerably in recent years²⁶ and has even been shown in prominent museum exhibitions. In most cases, though, the photographs remain invisible to the image-maker, and the editing process is performed by a seeing person. According to Simon Hayhoe, this field of artistic production follows two major trends. The first has been developed by blind and visually impaired collectives, such as the Seeing With Photography collective, New York, or Ojos Que Sienten in Mexico,²⁷ while the second form observed by Hayhoe is a more novice approach, mainly with school-aged students. Each of these students is given a simple camera without any adjustable parts and asked to take photographs of different elements of their everyday lives. Prominent examples are Tony Deifell's organization Seeing Beyond Sight, founded in San Francisco in 2002, and Partho Bhowmick's Blind With Camera in Mumbai, India.²⁸ Both forms can be seen in the context of photography's role as a medium for democratization and empowering socially weak groups.

The individual efforts of blind photographers are not mentioned by Hayhoe, but are noteworthy. The most prominent museum exhibition of the work of photographers with visual impairments to date was Sight Unseen: International Photography by Blind Artists, curated by Douglas McCulloh for the California Museum of Photography in 2009. It consisted of "111 photographs and 8 tactile illustrations" by 12 artists, mainly from the USA, but also from Mexico and France.²⁹ In all of these cases, however, the artwork remains invisible to the visually impaired person, until edited and then converted by a seeing interpretation artist.

Tactile Photography should therefore help to include blind photographers in the editing phase and give them more control over the whole artistic process. But it should also give seeing photographers the possibility to experiment with a new medium, test its limits and "play against the apparatus", to use Flusser's famous words.³⁰

^{23. &}lt; http://www.jamespatten.com/tactilephoto> and < http://www.tactile- 27. <http://seeingwithphotography.com>, and <http://www.sightofemotion. mindbook.com>, respectively (10.01.13).

images-1/592244> (10.01.13).

^{25.} These tactile diagrams, which have been mounted in public spaces and museums, are based on the findings of Hoëlle Corvest from the Cité des Sciences et de l'Industrie in Paris, who has developed an image literacy program for people who were born blind.

into a new genre in the field of contemporary art": S. Hayhoe, 'Blindness, [ed.], Göttingen 1997, 72. Photography and Art', in: http://blog.blindphotographers.org/blindness- photography-and-art/> (10.12.12).

org». Some of these groups are web-based, rather than locally organized, 24. < http://www.yannarthusbertrand.org, www.mikli.com>, and <http:// as is the case with <http://photos.blindphotographers.org>, <http://blindwithwww.behance.net/gallery/Alain-Mikli-Yann-Arthus-Bertrand-Tactiles- camera.org>, <http://www.theblindphotographer.com>, <http://www.blindphotography.com, and the flickr group http://www.flickr.com/groups/ blind_photographers> (all of them last visited 15.11.2012).

^{28. &}lt;http://www.seeingbeyondsight.org>, and< http://www.blindwithcamera. ora> (10.01.13).

^{29. &}lt;http://www.cmp.ucr.edu/exhibitions/sightunseen> (10.01.13).

^{26. &}quot;Photography by blind and visually impaired artists is fast developing 30 Vilém Flusser, Für eine Philosophie der Fotografie, Andreas Müller-Pohle

The Beast - On the Photographic Staging of the Large Hadron Collider at the Nuclear **Research Centre in Geneva**

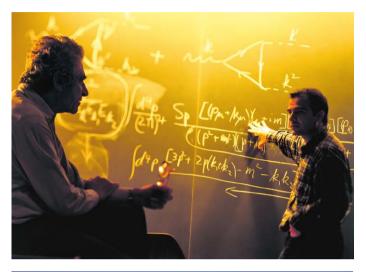
Monika Schwärzler Even before the book on the Large Hadron Collider (LHC) was published,¹ it was promoted using powerful visual metaphors and bombastic rhetoric. The visual urgency of these motifs left no doubts that this was clearly a photographic project operating at the borderline of what can be shown. How could the events associated with the particle accelerator, the Large Hadron Collider, be visualised? It is apparent that the main challenge existed in developing a visual language that would make it possible to illustrate these processes, some of which are immaterial and transcend our human powers of imagination.

> Peter Ginter is the person responsible for the photos in the LHC volume. Ginter is a renowned photographer who works for journals such as Geo and National Geographic and who has, in recent years, made a name for himself with commissioned work in various high-tech fields including biotechnology and plasma physics. The pictures collected in the LHC publication are the yield of a 15-year documentation of the construction of the Large Hadron Collider at CERN, the European Organization for Nuclear Research. The LHC, which is also known as "the beast" or "world machine"² is the largest particle accelerator on earth. Protons are accelerated to almost the speed of light and then brought to collision in this 27- kilometre ring housed in a subterranean tunnel. This makes it possible to simulate a situation comparable with that immediately after the Big Bang.



Figure 1 Peter Ginter, LHC publication, Edition Lammerhuber 2011, 127.

1. Peter Ginter, Rolf-Dieter Heuer, Franzobel, LHC. Large Hadron Collider, Baden: Edition Lammerhuber in collaboration with CERN and UNESCO 2011. 56. 2. LHC 2011 (reference 1), 56.





The first striking aspect of Ginter's photographic work is the highly charged atmosphere, the lighting effects of these photos. The question is if it is still possible to compare these light-enhanced pictures with technical photography in the conventional sense? Which visual discourses do so-called technical pictures follow today? As Peter Ginter's photos seem to suggest, a couple of standard models of visualising high tech institutions (fig. 1) and the activities taking place there have crystallised. These photos, which are included in the annual reports and information brochures of the respective institutions, show an elevated caste of scientists pursuing their jobs in an environment that is bathed in the artificial lighting of computer programs. The spirit prevailing in some of Ginter's LHC images can be best described as awe. Rolf-Dieter Heuer, CERN's director, calls Ginter's pictures "an impressive hymn to research."³ Most of the photos are jubilant, solemn, strictly affirmative and work with an almost religious pictorial language. The protagonists in these photos with the digitally-generated afterglow become astral beings and appear withdrawn and clean. As Paul Scheerbart, a German Expressionist and kindred spirit, noted: "...a person who sees the splendour of glass every day, can no longer have dirty hands."4 Consequently, the CERN crew becomes enlightened in the real sense of the word (fig. 2). The supernatural lighting invests the formulas on the board with something of the proverbial "writing on the wall" and turns them into immaterial signs in the sense of a revelation.

Figure 2 Peter Ginter, *LHC* publication, Edition Lammerhuber 2011, 43.

Figure 3 Peter Ginter, *LHC* publication, Edition Lammerhuber 2011, 100.

On the gloss of the surface

CERN becomes a universe of glossy surfaces in Peter Ginter's version. Metal components, tubes, copper wires, the crystals of the CMS subdetectors, the "big wheel" made of brass, etc. (fig. 3) all shine. Here, a reference to the French Abbot Suger occurs. As early as in the 12th century, he "attributed Christian cultic objects made of gold, silver and precious stones with having an effect on the spirit of the believer transcending the aesthetic."⁵ The sight of shin-ing, precious metal could result in "experiencing levitation" and transport the believers to higher spheres.

3. LHC 2011 (reference 1), 13

4. Paul Scheerbart, Glasarchitektur und Glashausbriefe, Munich 1986, 80.

5. Anne Krauter, *Die Schriften Paul Scheerbarts und der Lichtdom von Albert Speer – "das grosse Licht"*, doctoral thesis, Ruprecht-Karls-Universität Heidelberg 1997, 9.



Figure 4 Thomas Ruff, 3237, 2003, c print, 111 x 86 cm. Credit: Thomas Ruff. As described by Andreas Cremonini in his essay, 'Über den Glanz' (On Brilliance), in many cases, brilliance can develop an "aesthetic life of its own, (...) which transcends its indexical function of being an expression of the nature of an object."6 If one considers brilliance as a special case of a reflection, these reflections do not necessarily maintain an imitative relationship to the empirical spatial structure surrounding them. When light encounters concave, convex or moving surfaces, the reflected surroundings appear anamorphotically distorted and subsequently break away from their spatial structure of reference. A hardly noticeable displacement of the source of light or reflecting object, or if the viewer changes his visual angle, can result in a further modification of the reflected reality. Brilliance is extremely dependent on position; it is ephemeral and can therefore not be counted among the stabilising aspects of our perception. In the eyes of the phenomenologist, the viewer is also challenged and affected by brilliance whereby this surrender to the "worldless abyss of brilliance"⁷ is accompanied by the dissolution of the active gaze. It is only a small step from this dissolution of the active gaze to the conclusion that "this light, heralded by an irreal, intrinsic brilliance, is not of this world."8

Computer generated documentary photography

However, in reality everything is actually much more banal and there is no supernatural lighting that makes a technical object shine. The animating force of this light is much more a question of selecting the appropriate computer programme. What happens in the course of a digital annihilation of the photographic referent? Herta Wolf⁹ described this on the basis of Thomas Ruff's "Machines" cycle.

In this series of works from 2003, Ruff dealt with the holdings of the pic-

ture archives of the May Company, a tool and machinery factory. Ruff scanned 60 glass negatives from the 1930s, processed them digitally and then transformed them into large-format C prints. However, if one looks at these pictures of products that Ruff tinted with the colours of old, hard-wearing industrial paint, it becomes apparent that these objects are now far removed from their original context (fig. 4). In Ruff's digitally processed version the workpieces, which were originally produced for the company's sales catalogue, become floating, dazzling, digitally-platonic ideas of themselves. They are transformed into immaculate, hard,

6. Andreas Cremonini, 'Über den Glanz. Der Blick als Triebobjekt nach 8. Cremonini 2005 (reference 6), 224. Lacan', in: Claudia Blümle, Anne von der Heiden (eds.), Blickzähmung und 9. Herta Wolf, 'Thomas Ruff. The Historian of the Photographic', in: Camera Augentäuschung. Zu Jacques Lacans Bildtheorie, Zurich: diaphanes 2005, 222. Austria International, vol. 85, 2004. 7. Cremonini 2005 (reference 6), 222.



Figure 5 Peter Ginter, *LHC* publication, Edition Lammerhuber 2011, 209.

shiny objects of a consumer world whose longings they reflect and transport. They can stand on their own, stimulate their own desire and become simulacra of themselves.

As Wolf continues in her elaborations, Ruff's photos are actually only the last, but logical, step in a process of alienation and decontextualisation which is inherent in any photographic act, and which is only driven to its extreme through digital processing. The ongoing iconisation and virtualisation of our world have led to a dispensability of the photographic referent. To a high degree, the parts of machinery shown in Ruff's depictions owe their appearance to "the codes controlled by the (appropriate) computer graphic programmes".¹⁰

This makes it only logical that CERN staff members may hardly recognize their immediate working environment in the LHC photos; this kind of reportage photography actually deals with a digitally-processed variant of their familiar reality that follows its own logic of representation and can only partly be judged on its documentary claims.

10. Wolf 2004 (reference 9), 27.

On the staging of the man-technology relationship

How is the relationship between man and technology staged in these photos? At the beginning of the LHC book, a worker appears to have been inserted into the skeleton of the LHC construction (fig. 5). He almost seems to be framed by the surrounding elements. Throughout



Figure 6 Peter Ginter, *LHC* publication, Edition Lammerhuber 2011, 46. the entire book, numerous variations on this motif of the individual who occupies the centre of action and assumes his/her rightful position at the core of any scientific technological achievement, are simulated.

Many of these photos develop such force because the actual shape of the LHC makes it possible for them to play with the metaphor of the centre and all the desires connected with it. These alluring circular forms appear to breathe new life into the "visions of centrality of the Newtonian age"¹¹ – something that is actually no longer up-to-date. Workers, engineers and scientists act as empowered masterminds of the processes taking place in what seems to be a centred world.

One of the pictures that most emphatically spotlights human brain power, autonomy and spirituality is definitely the photo of the "monk" in a meditative pose that was also used to advertise the LHC book (fig. 6).

Everything surrounding the protagonist flows, shines, reflects. Only his dark clothing absorbs the light surrounding him and, in this way, amplifies the impression of substance and weight that becomes collected in his person. The position of his hands symbolises the closed yoga circle of energy. In addition, the white wave of energy, which passes through him at head height, stresses his claim to mental power. On the one hand, we have the figure of the monk – ascetic, concentrated, flawless, with absolutely nothing redundant, even hair would be a disturbance – invested with the orders of spirituality and all of the weight of a corporeality removed from reflection. On the other hand, we see the profile of the machine that has been dematerialised by the reflections on its surface and now appears almost naive. There is no doubt about the role of the master in this scenario. With a gesture of the monk's hand, the machine being would withdraw. This master/priest/scientist is in control of technology and has preserved the power of putting it in its place.

> 11. Susanne von Falkenhausen, 'Kugel versus Netzwerk. Neu-alte Totalitäten', in: Ilaria Hoppe, Bettina Uppenkamp, Elena Zanichelli (eds.), *Susanne von Falkenhausen. Praktiken des Sehens im Felde der Macht. Gesammelte Schriften*, Hamburg 2011, 343.

In this connection, it seems appropriate to make a comparison with Andreas Gursky's photography. In Gursky's digitally processed photos, the human becomes totally assimilated into the structures of a technological-economic sublime that exceeds one's powers of comprehension. The human being appears to have shrivelled in these fragmented, duplicated images of the gigantomania of global economic structures. Gursky's protagonist is no longer able to take command of the position in the foreground or centre and also no longer possesses the necessary stature and desire to stand out as a single person or distinguish himself from his digital clones.

In comparison, Peter Ginter's CERN personnel are still capable of demonstrating individuality and of finding salvation through their identification with a strong scientific superego. In this respect, Ginter reveals himself as a representative of a photojournalistic tradition that can be traced back to human-interest photography of the 1950s. It is well known that, in those photos as well, the individual was placed in the position of being a signifier of the meaning of life against the overwhelming backdrop of the Second World War.

Figure 7 Peter Ginter, *LHC* publication, Edition Lammerhuber 2011, 105.



Animated machines

Felix Guattari's term "machinic animism"¹² could be applied to what is staged in Ginter's LHC pictures. Guattari propagated the concept of a decentralised subjectivity that also includes the object as a bearer of dimensions of partial subjectivity. For him, this "polysemic, transindividual and animist subjectivity"13 - or "subjectity" as he called it - was mainly formed in machinic structures, and these include social, technical, aesthetic and biological machines. In Guattaris's opinion, animist machinic structures possess their own power of enunciation.

In this connection, Ginter's LHC photograph depicting the arrival of

Angela Melitopoulos, Maurizio Lazzarato, 'Machinic Animism', in: Anselm Franke (ed.), *Animism Volume 1*, exhibition catalogue, Berlin 2010.
 Melitopoulos, Lazzarato 2010 (reference 12), 103.

Und alle Fragen offen

Wahrscheinlich haben Physiker das Higgs-Teilchen entdeckt. vervollständigt eine alte Theorie – und bringt gleichzeitig der Teilchenphysik viel Ungewissheit VON ROBERT GAST

Figure 8 Press photo from *Die Zeit*, July 12, 2012, 29. Rex Features / picturedesk.com. a focussing magnet, produced in the research centre *Fermilab* in Chicago, is really telling. As the photo indicates, this is not simply the delivery of a piece of technical equipment; it is much more the spectacular entrance of a machine invested with Guattarian subjectity (fig. 7). It almost appears as if the focussing magnet had sought its own path, marked by dynamic lighting effects, and that the human personnel were only bystanders at its arrival. The person on the left of the picture seems to demonstrate the appropriate mode of reception and bears an iconographic resemblance to various art historical staffage figures that are shown standing by, in astonishment. The arrival of this piece of machinery, invested with élan and potency, is presented as an explicit act to enliven the grey façade. Powerfully, energy flows in through the large portal into the CERN machine. At a fleeting glance, one could read the

sign on the focussing magnet as femme and lap; but that would be another story and entail investigating these photos from a gender point of view.

Final comment

Peter Ginter's digital postproduction can be interpreted as a means of retroactively providing liveliness and animation for his images. As a counterexample, I would like to present a quasi non-animated view of the CERN detector from *Die Zeit* newspaper (fig. 8). In contrast to Ginter's pictures, this seems lustreless, dead, uninspired.

The question is whether the root of all of this skilfully deceptive photographic post-processing cannot simply be attributed to the age-old frustration about the limitations of the photographic medium. It is well known that photography as a surface phenomenon resists any form of transcendence. Photographers such as Ginter take up these dead findings of the factual and attempt to invest them with an additional dimension with which all goods are made to blaze, shine and radiate today. The question in this case is: Is he an animist or animator? Is he an animist driven by the desire to expand the photographic medium or is he more of an animator of a media society that demands increasingly dramatic and charged images?

In all fairness, it is necessary to say that not all of the photos collected in the LHC publication follow this sensationalistic form of aesthetic. Some of the scenes depict real everyday work, appear comparatively sober and some even display touches of ironic distance to the gigantomaniac approach of this project.

In any case, Peter Ginter's photos undoubtedly help to legitimize and promote the CERN endeavour. By providing the basic research being carried out in Geneva with an almost mythical frame and investing it with religious connotations, the processes taking place there become emphatically removed from the sphere of capitalist productivity and its possible dangers. The views of the visitors centre included in the LHC volume suggest that the institution itself argues with a comparable aesthetic. For these visual justification strategies, CERN found a real master in Peter Ginter.



Joseph Nicéphore Niépce, View from the Window at Le Gras, about 1826, Heliograph, 25,8 x 29 cm. Harry Ransom Center, The University of Texas at Austin.

Photo Digitality in the Area of Conflict **Between the Material and Immaterial A** Review as a Preview

Carl Aigner

Image societies

In the debate on digital image worlds, which has been in progress for some time already (in which, analogous to the death of painting that was pronounced in 1960s and 70s, people started talking about the dramatic "death" of photography at the beginning of the 1980s), it is intentionally ignored that societies, which are primarily founded on images, generate the visual techniques they implicitly need for their "existence". In the Renaissance, and with the paradigm of the central-perspective image (also as the expression of an early-capitalistic economic and societal mechanism), at the very latest, the immanence of the image and society became constitutive and also began to formulate a relationship between the concepts of the subject and the image for the first time: the image and subject correlated and their reciprocal influence increased until arriving at the present "digitage" of image and subject as a visual and biotechnological strategy (something that has long been implemented in science fiction) - but that is another matter and subject for discussion.

In order to fully comprehend the complexity of this development, it is necessary to develop a polyvalent concept of the image, capable of linking the register of the relationships between the image and society going far beyond any artistic discussion. This makes it essential to outline the concept of the "need for images" of societies transcending aesthetic aspects as Hans Belting described so illuminatingly with his concept of "visual anthropology".¹ In this way, artistic and aesthetic visual dimensions can be brought to the level of a "social" form of collective communication without negating their autonomy (nowhere can this be studied more impressively than in the iconography of Christian images).

Images as a form of information transfer and social autonomy (which is itself partly based on this transfer of information) develop into neurological factors of the social body. Images act as part of an overall societal principle of exchange, as social shifters of a "mille plateaux" in Deuleuze/Guattari's words,² that has experienced an amazing reception in recent years. Image-exchange societies rapidly transform the object, the instrument of communication, into a value sui generis. However, aesthetic liberation or defunctionalisation soon becomes another drawback for social communication and exchange as Andreas Reckwitz so emphatically showed when recently dealing with the subject of creativity.³

Society-Image-Time

If a symbiotic relationship is formed between the image and society as is here the case, images must have been an essential aspect of the "episteme" since the 18th century - to take advantage of the same term Michel Foucault uses. First of all, one of the major factors of this episteme is the phenomenon of time. Since the late 18^{th} century – and especially in the 19^{th} – time developed into a form of "capital" per se in a rapidly secularising society. This took place

Wilhelm Fink Verlag 2001.

1. Hans Belting, Bild-Anthroplogie. Entwürfe für eine Bildwissenschaft, Munich: 2. Gilles Deuleuze, Felix Guattari, Mille Plateaux, vol. 2 of Capitalisme et Schizophrenic, Paris: Les Editions de Minuit 1980.

3. Andreas Reckwitz, Die Erfindung der Kreativität - Zum Prozess gesellschaftlicher Ästhetisierung, Berlin: Suhrkamp 1995.

on the level of the desire to gain time (also as the phantasm of an abolition of time: the faster, the more time is the illusory formula for this). Acceleration became a basic component of the social development that we are experiencing today as "breakneck standstill" as Paul Virilio so concisely pointed out.⁴ And, in image societies, this will also become relevant and apt for images. Paul Cézanne described this development with great force: "One will have to hurry if one wants to see something; everything is disappearing."

Therefore, accelerated societies demand increasingly fast image techniques and technologies that are more efficient and increasingly dematerialised in order to be able to come to grips with their "mode of being". And that, in two ways: On the one hand, in the way images are produced (always faster) and, on the other, in respect to the "content" – the visual information and reception – itself. The invention of photography in the 19th century provided a congenial solution to this, principally due to the fact that the photographic image is itself created time-based: the exposure time becomes the pictorial information time that also determines the reception. This is because the photographic imaging capabilities are not as determining as the (photographic) formatting of visual information. The photograph made the world socially available to an extent that had not been possible with any other medium beforehand!

Whereby, the immateriality of the photographic finds itself in its specific method of production: in light. Photography as "photo-graphy" first of all substitutes an apparatus for the hand (at least in major aspects) that is capable of turning light into the image factor, which then becomes the accelerator of the image, using light-sensitive chemistry: machineaided epiphany.

Analogue-digital

The transition to the digital image springs from the same needs for images as crystallised one hundred years before; but this time even faster and much more efficient when dealing with the production of "content" in view of its social availability and distributiveness. New interconnectedness, from the Internet to the great variety of "social media", more efficient image production in the transfer as well as on the information level itself.

This leads to a proliferation of immaterial approaches: As an "electronic" image, we find the change from light to light as energy. The so-called immateriality of the digital is an energetic dimension. And, for those who consider the biotechnological development, this will soon be bio-energetic (biological storage systems, increasing interconnection between the body and digital electronics).

This makes the discussion about photography versus digital photography futile seeing that any visual medium implies its own immanent "mediality", its own pictorial

4. Paul Virilio, *L'Inertie polaire: essai (Rasender Stillstand: Essay)*, Munich, Vienna: Hanser 1992.

possibilities, and it is actually only a question of the intended application that ultimately decides what is "sensible" and what not. After the great digital frenzy of the 1990s, current artistic discourses are once again dealing with analogue photography in greater detail; it is extremely revealing to observe that here the artistic dimension determines the particular medial parameters that are used to operate with.

The digital image world is something additional in the same way as the film "expanded" photography without fundamentally negating it. What does the digital image offer that is extra and new, and what kind of feedback on the "old" medium of photography does this produce? Immateriality as a new visual paradigm of the digital (from the photo collage to the "digitage" for example) cannot be separated from the other immaterial realities of our society. Faced with the biotechnological findings, the question arises of whether the "analogue" will soon find its social existence in the protected area of the artistic and whether the "digital" is sucking the blood from the "original" like a vampire and subsequently whether our future society will still have any demand (and need) for analogue originals.

Images as (social, artistic, etc) information instruments of social, power-play, etc needs cybernate themselves along numerous social lines of development that are formed and formatted by the mechanism of time; or more precisely, the time consciousness and time requirements of respective societies in need of images who have begun to develop time (and gaining time) as an absolute dictum of their mode of being – and that will remain "photographic" for quite a while. The contributions made by Jeanna Nikolov-Ramírez (page 76), Ilka Becker (page 88) and Christoph Schaden (*PhotoResearcher* No 17 April 2012, pp. 68 - 77) have given an idea of this. The amalgamation of time and the image as a method of production is what is fundamentally new in the photographic that is now also made effective digitally in the field of mass-medial distribution in order to (apparently) gain even more time for the daily distribution of images – whether this will result in us being able to see better or whether the world will disappear even more is another key question.

Pictorial Spreading On Immaterial Forms of Collecting and Sharing Images

Jeanna Nikolov-Ramírez

...the objects in our lives, as distinct from the way we make use of them at a given moment, represent something much more, something profoundly related to subjectivity: for while the object is a resistant material body, it is also, simultaneously, a mental realm over which I hold sway, whose meaning is governed by myself alone. It is all my own, the object of my passion.¹ Jean Baudrillard.

Images, as the objects that surround us, that we surround ourselves with, attest to our interests and passions. The separation of the image from its material surface has led to a rapid spread in visual manifestations. Previously unimagined forms of collecting and sharing photography have emerged through social media, allowing the viewer to share pictures, forward, or expand a virtual collection with only the click of a mouse.

However, the ease and speed of dissemination of visual material has also decreased the time spent verifying the authenticity of that material. Of course, the forgery of photography is not a new phenomenon. Editing and manipulating photographic images has accompanied photography since its very beginnings.² However, with news and images now being disseminated instantaneously through blogs, tweets, message boards, and other online social platforms, the dichotomy between fake and authentic has taken on new dimensions.

Versions and contextualization: the approximation of authenticity

Hurricane Sandy, which devastated the American East Coast in November 2012, is a recent example. Numerous images allegedly depicting the damage evoked by the rising water were circulated. On closer inspection, however, many of those images turned out to be manipulated, enhanced, or completely fabricated. The images altered through blunt digital montages, as well as subtle tweaking and embellishment, changed reality and, thus, the transported message.

The Statue of Liberty mounted on the background of a supercell thunderstorm in Nebraska from 2004, photographed by Mike Hollingshead,³ and still images from the movie The Day After Tomorrow were among those images used to dramatize the event. A series of images conveying the urban legend of sharks swimming up to houses in New Jersey proved especially popular; these were actually simple montages.

Of course, there were also gripping real photographs of water breaking in that night but, in the cacophony of images being forwarded and penetrating the social media channels, it was difficult for the recipient to distinguish between the real and the fake.

Cardinal (eds.), *The Culture of Collecting, London*, 1997, 7. See: http://ninalp. com/ART/Papers/collecting baudrillard(3).pdf > (17.12.2012).

1. Jean Baudrillard, 'The System of Collecting', in: John Elsner and Roger 2. For a beautiful recollection, see Mia Fineman, Faking It. Manipulated Photography before Photoshop, catalogue published for the corresponding exhibition at the Metropolitan Museum of Art, Yale University Press: New Haven and London, 2012.

3. <http://www.snopes.com/photos/natural/nystorm.asp#photo>(17.12.2012).

Sometimes the images themselves were not manipulated but simply borrowed and inserted into a new context. A picture documenting the Old Guard, which guards the Tomb of the Unknown Soldier, was real, but it had been taken in September 2012, before the hurricane. Another picture depicting Times Square eerily void of people on a rainy night turned out to be a ZUMA Press image dating back to August 2011. And a highly contrasted picture of what appears to be the George Washington Bridge with the storm approaching and a looming sky turned out to be a stock photo from 2009 sold on Getty Images.⁴

Sharing images via the press and social media

In his work Versions,⁵ artist Oliver Laric reprocesses various imagery that deal with the topic of versioning. He includes an image depicting four missiles being launched that was issued by Sepah News, the media arm of Iran's Revolutionary Guard (fig. 1). The outline of the dust cloud suggests that one of the missiles was created by combining parts of the image of two other missiles. And, as a matter of fact, the next day an image was released showing only three missiles, identifying the previously released image as a manipulation.⁶ Shortly thereafter, a vast array of images appeared on tumblers, image boards and blogs satirizing the picture and exaggerating the manipulations. Some showed additional missiles flying in opposite directions, some showed no missiles, and some included flying Godzillas and robots. When googling the incident, the original image with three missiles appeared on a par with an image with multiple missiles. It was up to the audience to determine the images' authenticity.

It is important to mention that several newspapers carried the manipulated image on their front page the day it was released; among them, the Los Angeles Times and the Chicago Tribune.⁷

Precisely, it is about what five people think this reality consists of. How an incident happens may reflect nothing about the incident itself, but it must reflect something about the person involved in the happening and supplying the how. Five people interpret an action and each interpretation is different because in the telling and the retelling, the people will reveal not the action but themselves.⁸

The act of collecting pictures and photographs: the common curator

The complex relationship of aisthesis and semiosis, of appearance and meaning, proliferates itself not only in the creation or alteration of images but also in the manner in which they are distributed and by the very act of assembling them.

images.co.uk/detail/photo/george-washington-bridge-royalty-free-image/89553900 (13.12.2012).

5. <http://oliverlaric.com/versions.htm (24.11.2012).

4. George Washington Bridge Photo on Getty Images http://www.getty-fRnVsY3J1bT0x0DQ1Nzc1NzU3XzAmbXVpPTEmaWZzPTA%3d&mui=1#numP age=1> (5.3.2013).

> 7. For details see the New York Times blog entry "In an Iranian Image, a Missile Too Many," http://thelede.blogs.nytimes.com/2008/07/10/in-an-

> 8. Oliver Laric guoting David Richie [Donald Richie, The Films of Akira worlds.html> (19.12.2012).

^{6.&}lt;http://www.imageforum-diffusion.afp.com/ImfDiffusion/Search/Results. iranian-image-a-missile-too-many/> (19.12.2012). aspx?numPage=1&srchMd=2&obj=IRAN-NUCLEAR&date=2008-07-11&cntr yCd=IRN&lang=de&psrch=aHR0cDovL3d3dy5pbWFnZWZvcnVtLWRpZmZ1c2 *Kurosawa*, page 75]. <http://bourbakisme.blogspot.com/2011/09/manylvbi5hZnAuY29tL0ltZkRpZmZ1c2lvbi9TZWFyY2qvUmVzdWx0cy5hc3B4P251b VBhZ2U9MSZzcmNoTWQ9OCZmc2VhcmNoPXNlcGFoK21pc3NpbGUmSUR

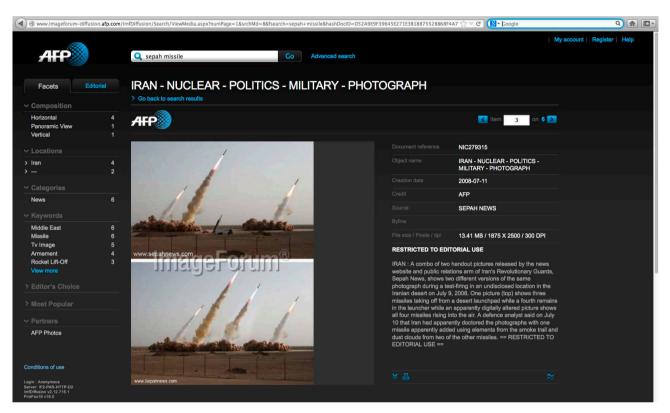


Figure 1

AFP release: "(Iran) A combo of two handout pictures released by the news website and public relations arm of Iran's Revolutionary Guards, Sepah News, shows two different versions of the same photograph during a test-firing in an undisclosed location in the Iranian desert on July 9, 2008. One picture (top) shows three missiles taking off from a desert Launchpad while a fourth remains in the launcher while an apparently digitally altered picture shows all four missiles rising into the air. A defense analyst said on July 10 that Iran had apparently doctored the photographs with one missile apparently added using elements from the smoke trail and dust clouds from two of the other missiles. July 2008."

Photo sharing sites like Flickr, Instagram, and Facebook have become standard tools in recent years. However, a wide array of services that are less well known is dedicated to the collecting of images: SmugMug, Dropbox, and Photoccino to name a few. They all vary in their features but, in general, the user simply uploads photos, which can then be organized into albums/ galleries. Some tools offer desktop photo editing software plus exporting capabilities and the possibility of adding annotations.

The best known site that has recently attracted massive interest is Pinterest (fig. 2). This social photo-sharing website opened as a closed beta in March 2010 and to the public without the need for an invitation by August 10, 2012. In September 2012, Pinterest reportedly already had a following of 25 million unique users.⁹ Eighty percent of the pictures pinned on the boards are so-called repins, which means they were collected from someone else's board or pin.¹⁰ This appears to indicate that the main activity of the users of this page is collecting images. With images becoming increasingly available and technology facilitating the process of sharing, the democratization of the curatorial process and of pictorial ownership is enabled. Global audiences can now gather around niche

9. According to comscore MediaMetrix http://www.comscore.com/Insights/ Press_Releases/2012/10/comScore_Media_Metrix_Ranks_Top_50_U.S._ Web_Properties_for_September_2012> (19.12.2012).

10.<http://www.businessinsider.com/6-charts-that-reveal-the-truth-aboutpinterests-crazy-growth-2012-2#naturally-most-of-pinterests-pins-arentunique-80-are-repinned-or-shared-on-pinterest-from-someone-elsespinterest-page-rather-than-the-original-source-2> (19.12.2012).

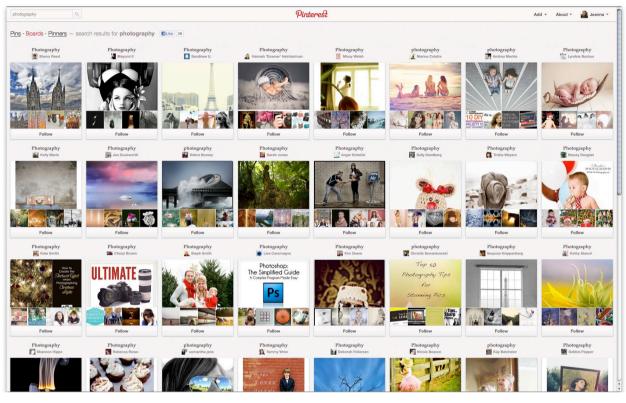


Figure 2 A Screenshot of *Pinterest* with search for 'Photography'. interests. But why do people collect images? Matthias Winzen attempted to explain: When our focus turns away from the objects that are being collected to the people who are doing the collecting, it becomes apparent that the act of collecting is not only protective, but also anxious. There is concern about past losses, and also future uncertainties. The systematic accumulation of objects, among other things, always intended to secure the symbolic continuity of the collecting 'subject' in the future..... The collection is always intended to function as a lasting mirror of the person who built it, and who is him- or herself less durable than his or her chosen mirror.¹¹

Appropriating images in new collections can alter their meaning. An image of a woman smoking a cigarette in the street can be collected for the type of dress she is wearing or her hairdo, for interest in the lighting of the scene, or for documenting public smoking habits. Ingesting an image in a collection can make it something special because it was specifically chosen to be in that collection, but it can also strip the image from its island position. *Collecting introduces meaning, order, boundaries, coherence and reason into what is disparate and confused, without contours and is contingent or threatening. Unique objects become one of many.*¹²

11. Matthias Winzen, 'Collecting so normal – so paradoxical', in: Ingrid 12. Winzen 1998 (reference 11), 23. Schaffner and Geoffrey Batchen (eds.), *Deep Storage: Collecting, Storing and Archiving in Art*, Munich/New York: Prestel, 1998, 22.

Moreover, the re-use of images and cultural material is considered a business factor and major economic motor. One of the biggest funding calls made by the European Union (EU) in its Competitiveness and Innovation Framework Programme (CIP) 2012 aimed at the re-use of digitized cultural material.¹³ In its Recommendation on the digitization and online accessibility of cultural material and digital preservation, the European Commission emphasized that digitization helps Europe's cultural institutions to continue with their mission of providing access to heritage in the digital environment and that digital content can be re-used for both commercial and non-commercial purposes. Education, tourism applications, games, and design tools can all profit from the provision and re-use of images.¹⁴ Cultural material provides important input to the creative industries, which account for 3.3% of the EU gross domestic product (GDP) and 3% of employment, and is increasingly considered a source of growth:¹⁵

Digitizing and providing wider access to cultural resources offers enormous economic opportunities and is an essential condition for the further development of Europe's cultural and creative capacities and of its industrial presence in this field... Europe is a leading international player in the field of cultural and content businesses. This position is based on its rich and diverse cultural heritage: the quality and quantity of European cultural material offer a fantastic opportunity for the content industry to generate smart growth and jobs.¹⁶

In 2013, a new research project called EuropeanaCreative will include 26 partner institutions from 14 EU member states targeting the stimulation of re-use of so-called cultural commons with a set of initiatives like open lab structures and pan-European creative challenges.

Stock images: macro- and micro-stock

The market for images has been quite aggressive and significantly shaped by mergers and acquisitions of stock agencies over the last couple of years. Big players like Getty Images and Corbis have bought several image archives, leading to a discussion of the privatization of the image and its geographic implications. Drawing on the phenomenon of artists increasingly using stock as source material, Isobel Harbison, who led a panel on stock images at the Frieze Art Fair in September 2012, claimed that stock images are dependent upon the Internet for accumulation, circulation, distribution, remuneration and regulation,¹⁷ when drawing on the phenomenon of artists increasingly using stock as source material.¹⁸

tivity' of CIP ICT PSP Call 6 <http://ec.europa.eu/information_society/activities/ict_psp/documents/cip_ict_psp_wp2012_adopted_01022012.pdf> (19.12.2012).

14. See European Commission: Recommendation on the digitization and online accessibility of cultural material and digital preservation, page 2. See also European Commission: SEC (2011) 1274 final: Commission Staff Working Paper accompanying the document Commission Recommendation on the digitization and online accessibility of cultural material and digital preservation {C(2011) 7579 final}, page 5. http://ec.europa.eu/information society/activities/digital_libraries/index_en.htm> (19.12.2012).

15. According to EU Competitiveness Report 2010, <http://bookshop.europa. eu/en/european-competitiveness-report-2010-pbNBAK10001/issues/?Pub

13. The call 2.1.b 'Experimenting with the use of cultural material for crea- licationKey=NBAK10001&EditionKey=NBAK10001ENC PAPER&CatalogCat egoryID=C5gKABstvcoAAAEjZJEY4e5L>. See also: Promoting cultural and creative sectors for growth and jobs in the EU (26.9.2012) http://ec.europa. eu/culture/our-policy-development/documents/communication-sept2012. pdf> (19.12.2012).

16. Commission Staff Working Paper accompanying the document Commission Recommendation on the digitization and online accessibility of cultural material and digital preservation {C(2011) 7579 final}, page 5. http://ec.europa. eu/information society/activities/digital libraries/doc/recommendation/ staffworkingpaper1274final.pdf> (19.12.2012).

17. Isobel Harbison, 'Stock Piles,' in: Frieze Issue 145, March 2012, see: <http://www.frieze.com/issue/article/stock-piles/> (19.12.2012).

18. <http://friezefoundation.org/talks/detail/deeply-superficial/> (1.12.2012).

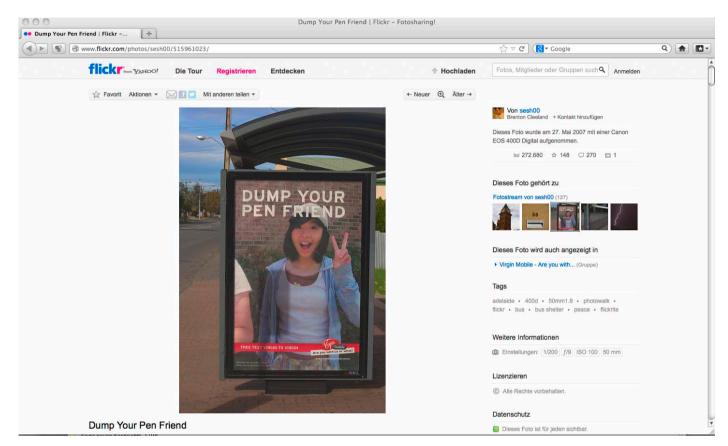


Figure 3 Brenton Cleeland, *Dump your pen friend*, screen shot of a billboard in Australia using Flickr imagery, 27. May 2007. Stock images have to be general and reusable and must anticipate future buyers' needs. Partly motivated by the need for pictorial material with more diversity and local flair, partly by the accumulation of private images on photo sharing sites, a new segment has come into being on the photo market: Microstock. Stock agencies source material from the Internet and media portals and offer it on favorable terms. This phenomenon began in 2000 with iStockPhoto and has stirred some fierce criticism, but, in some cases, has developed into a profitable income source for photographers. Getty partnered with Flickr and since 2010 users have been able to label images as suitable for stock use and can obtain payment if their pictures are sold.

The legal situation around the Creative Commons license is still precarious and creates ambiguity as the case of Alison Chang illustrates. Her picture was taken by her youth counselor at a church function she attended in Texas and later posted on Flickr with a Creative Commons license. Virgin Mobile used the image for an ad campaign on billboards containing photos from

Figure 5 A Screenshot of *Europeana.eu* with search for 'Photography'.

Figure 6 A Screenshot of Image Atlas by Taryn Simon/Aaron Swartz, 2012, with search term 'Photography'.

Flickr in both Melbourne (Victoria, Australia) and Adelaide (South Australia). The picture of then 16-year-old Alison was printed with the slogan, "Dump your pen friend," over it (fig. 3). Her family sued.¹⁹ The case against Creative Commons was dropped in November 2007. The case against Virgin was dismissed for lack of jurisdiction in 2009.²⁰

However, the sharing of images can also have beneficial outcomes. Crowd-sourcing is a popular means of gathering information or assistance and very successful in the case of the Smithsonian's *Portrait of Scientists* project. The photograph of a young unidentified woman was posted to Flickr in March 2009 (fig. 4). The only information the image contained were the words *E. S. Goodwin*. Flickr users contributed clues that led to the identification of the woman as Elizabeth Sabin Goodwin, an artist hired at a science news service in the 1920s, and even her granddaughter became involved and contributed details of Goodwin's life and some of her drawings.²¹

Documentation and pictorial bulk portals

Next to the "private" online image collections that have continuously grown in popularity since the beginning of the 1990s, there

has been a strong effort to create image portals as central access points to large collections of mostly digitized but also born digital images. The biggest project to date launched its beta prototype on November 20, 2008: Europeana, the multilingual, digital European cultural portal bringing together more than 20 million objects (e.g. images, documents, videos, music files) across more than 2,000 institutions – libraries, museums, archives, and audiovisual collections (fig. 5).

In February 2011, the Google Arts Project was introduced to the public. It includes more than 35,000 objects from 46 museums.

ImageAtlas (Taryn Simon/Aaron Swartz, 2012)²² (fig. 6) is an interesting recent artwork investigating cultural differences and similarities by indexing top image results of local search engines throughout 60 countries and offering the option to group results by GDP, thus revealing different depictions of values such as wealth or youth.

19. Some useful legal advice on how to use photo-sharing social networks was issued by JISC <http://www.jisclegal.ac.uk/ManageContent/ ViewDetail/ID/2705/Pinterest-Image-Sharing-Websites-and-the-Law-5-December-2012.aspx> (20.12.2012).

20. http://blog.internetcases.com/2009/01/22/no-personal-jurisdiction-over-australian-defendant-in-flickr-right-of-publicity-case/ (19.12.2012).
21. http://www.flickr.com/photos/smithsonian/3397805195/ (19.12.2012).
22. http://imageatlas.org/ (19.12.2012).



Figure 4

Unidentified photographer,

Elizabeth Sabin Goodwin, c. 1920s-1970s,

black and white photographic print.

Accession number: SIA2008-1965.

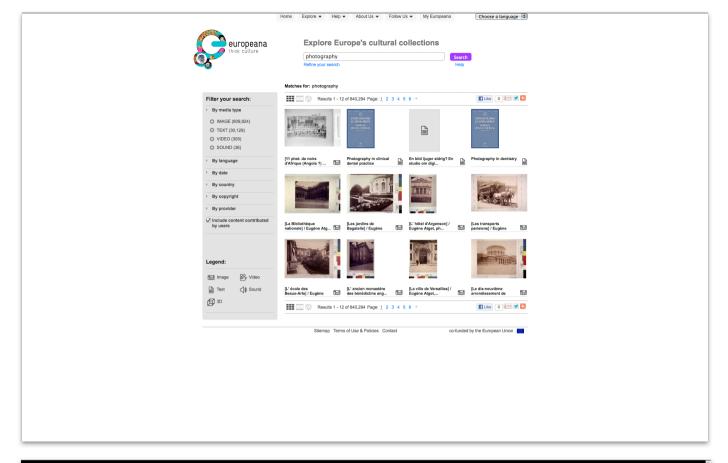






Figure 7 Richard Misrach, Cloud #232, 1993, chromogenic print, 122 x 152 cm. ©Richard Misrach, courtesy Fraenkel Gallery, San Francisco, Marc Selwyn Fine Art, Los Angeles and Pace/MacGill Gallery, New York. Most viewed photograph on VIP art 2.0 in February 2012. The art market and social media

One of the most interesting current experiments in online art commerce is VIP Art,²³ the first virtual online art fair. While it originally started as a closed-off event by special invitation in 2011, the concept was changed after September 2012 to offer unrestricted access and special

23. Previously VIP Art Fair http://www.vipart.com/ (24.11.2012).

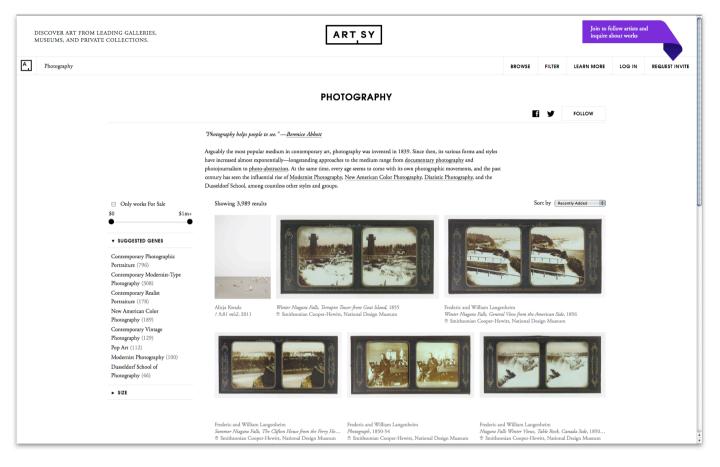


Figure 8 A Screenshot of *Art.sy* with search for 'Photography'. thematically focused exhibitions. Participating galleries can list 25 works and show 10 to 20 of them in their virtual booth for a subscription of \$350 to \$600 a month. The site tries to reproduce the ambience of an art fair, while the dislocated clients can browse the art at their convenience from any room in their home. There are 75,000 subscribers to the site, with 135 exhibitors from 35 countries, and it had 26,000 visitors from 126 countries in the first four weeks after implementation of the new model.²⁴ The most viewed work by visitors to VIP Art 2.0 in February 2012 was a photograph: Richard Misrach's *Cloud #232* (fig. 7).

Another site showing the growing interest of the art world in social media is Art.sy, launched on October 8, 2012 (fig. 8). It will be the exclusive platform for Design Miami and the Armory Show in March 2013, holds 20,000 images of art works in its reference system so far, and collaborates with 275 galleries and 50 museums. The site wants to make the world's art accessible

24. According to a phone interview with Cristina Biaggi, the Associate Director of VIP Art, on November 7, 2012.

to anyone with an Internet connection and it classifies artworks by 'genes', ²⁵ gradations of art historical concepts. This allows for suggestion of art works similar to the beholder's sensitivity. Prior to its public launch, Art.sy had 60,000 registered users.

Image economy: effects on the value of an image

What are the effects of sharing and distributing an image on its value? How do online images of artworks and online promotional material in general, influence how we later experience those artworks in the real world?

Investment and growth in Organization for Economic Co-Operation and Development (OECD) economies is increasingly driven by intangible or knowledge-based capital The OECD's INTAN-Invest provides market sector data on intangible assets for 27 EU countries plus Norway and the US. The sector for literary and artistic originals is valuated at EUR 2.4 Mio for Austria and \$379 Mio for the US,²⁶ suggesting an intangible added value created in the art works, including photography.

The Art Photography Fund located in Vienna buys photography as an investment and tracks the value appreciation of particular photographers' work over time based on the Comparative Auction Index. In its brochure, it offers graphs showing the value growth of artists such as Ansel Adams (9%), Rudolf Koppitz (19%), and Man Ray (20%) over the last years.²⁷ It is the first worldwide open fund to invest in artistic photography.²⁸

When we consider its cultural and social capital, a picture might increase in influence via large propagation. After all, images viewed often enough become part of the collective memory of our society, icons of our times. The more often a digital image is observed, the higher it is ranked in the Google algorithm. We should recognize that collective experience is now based on simultaneous private experiences, distributed across the field of media culture, knit together by ongoing debate, publicity, promotion and discussion.²⁹ And more often than not, what is not found in Google, as well as in the depths of archival or museum storage, does not exist for the viewer. This is not much different than in earlier times when newspapers or art and photography magazines were creating the economy of visual culture and merchandise, but the number of channels used has multiplied in the last few years. Images can be obtained not only via the mainstream media and art books but also via special-interest blogs and social platforms, or they can be distributed straight from your device to someone else's. All of these channels compete for our attention.

26. See <http://intan-invest.net/> (19.12.2012).

sy and the Art Genome Project at DataGotham, September 2012, New York <http://youtu.be/09X3 8te4hs>(19.12.2012).

²⁷ [19.12.2012].

^{25.} See Matthew Israel, Director of the Art Genome Project, explain Art. 28. For details on its practice, see also: 'Fotogene Performance', in Private Banking magazine 3/2102 http://artphotographyfund.com/files/pages/40/ private banking 03 12.pdf>(19.12.2012).

^{29.} Seth Price, Dispersion, an essay that addresses the web's superseding of physical public space, http://www.distributedhistory.com/Dispersone.html (19.12, 2012).

Does an image decrease in economic value because it counteracts the market principles of supply and demand when it is omnipresent? Or is the image itself not the relevant item but rather the mental matrix it represents? Is it a sign of our times that certain pictures float to the surface and are picked up thanks to their pleasing syntactic features? Maybe it is not the item itself that matters, but instead its context and the very act of dispersion or, as Marcel Broodthaers formulated it: *The definition of artistic activity occurs, first of all, in the field of distribution.*³⁰

30. Price (reference 29) cited after a letter to Herbert Distel, 1972 see: Jérôme Dupeyrat, *Les livres d'artistes entre pratiques alternatives à l'exposition et pratiques d'exposition alternatives*, doctoral theses, Rennes 2012 http://tel.archives-ouvertes.fr/docs/00/77/23/14/PDF/2012theseDupeyratJpartielle. pdf> (19.12.2012).

Some Remarks on Material Agency after the **Digital Turn and the Photographic Metaphor** of the Living Digital

Ilka Becker

1. Photographic Agencement

After the so-called digital turn had initiated a controversial debate about immateriality in photography in the 1990s, latest research has once again focused on materiality. This does not come as a surprise. Contemporary photographic practices themselves show a deep interest in the material aspects of photography and academic movements, such as Material Culture Studies and Actor Network Theory (ANT), also converge on photography theory.

Within this context, the notion of materiality is not restricted to the technical devices producing photographic pictures. The image as the representation of an external material reality is also not at stake. Furthermore, as already seen in early photoworks by Sigmar Polke, chemical substances, bacteria and different support materials come into play as agents of the photographic. The development or generation of the photographic picture, including accidental aspects and unforeseen results, is considered as a constitutive part of the photographic activity. Thus, the photographic can be understood as *agencement*ⁱ – an arrangement of activities and processes on photographic terms.

My assumption is that this interest in materiality is not a mere effect of academic moves towards material culture. It results rather from a shifting relationship between materiality and immateriality that can be characterized with the metaphor of the *living digital*. In the formation of the *living digital*, materiality and immateriality do not work as static opposite concepts. In fact, both are situated dynamically in relation to each other, depending on the changing conditions of production and perception that come along with the photographic agencement in contemporary digital cultures.² Here, *material agency* (the potentiality to act) – a sometimes vitalistic aspect of analog photography succeeding the natura naturans of romantic nature philosophy - merges with the notion of dynamic and lively immaterial data flows shaping the social lives of producers and users of images.

2. Material Agency

For his camera- and lens-less celestographs of the 1890s, August Strindberg placed photographic plates directly under the starry sky (fig. 1). The results undecidedly range between (unlikely) representations of the starlight and a material stratum caused by the agency of weather or small particles falling onto the surface of the plate.³ Interestingly, the celestographs are far from being monochrome pictures, but vary in their polychrome shades from brown over blue and green to yellowish. According to theorist Peter Geimer, Strindberg used the "self-activity [Eigenleben] of photographic chemicals for the production of unpredictable images."⁴ As Strindberg wrote in 1894, he was interested in chance as an artistic method

Plateaus (1980), London/New York: Continuum 2004.

2. Cf. Ute Holl, 'Materialität / Immaterialität', in: ZfM, vol. 2 (1/2012), 10-13.

1. Agencement is a term used by Gilles Deleuze and Félix Guattari in A Thousand 3. See Douglas Feuk, 'The Celestographs of August Strindberg', in: Cabinet Magazine, Issue 3: Weather (2001), <http://www.cabinetmagazine.org/issues/3/ celestographs.php> (30.12.2012).

> 4. Peter Geimer, Bilder aus Versehen, Hamburg: Philo Fine Arts 2010, 17 (Quotation translated from German by I. B.).



Figure 1 August Strindberg, Celestograph VIII, photogramme, 9,2 x 6 cm, Dornach, Austria 1893/94. Stockholm, National Library Strindberg collections.

"provided by nature" in order to produce "natural art, where the artist works in the same capricious way as nature, without a set goal."⁵ Thus, the romantic concept of creative nature served Strindberg as a model to draw an analogy between organic life processes and the inorganic vitality of an allegedly authorless photography.6

Geimer has connected Strindberg's idea of artistic practice, employing the self-activity of different materials working together, with Bruno Latour's concept of agency. He points to Latour's proposal to take the agency of non-human actors, acting being the potential not only of human beings but of a dynamic network of human und non-human actors, into account. Static categories of subjects and objects do not exist in his concept of actornetworks. Subjects, as well as objects, do not emerge as entities until their status is allocated by the relational activity of the network.⁷ Therefore, a substance may also play the role of an active entity. Following this, material agency can be understood as the potential of material entities to appear as an actor in the photographic agencement.

2. The Living Digital

Does this idea of material agency have any kind of transformed 'afterlife' in digital practices, leaving behind the specific processuality of material substances historically linked to analog photography? To answer this question, it might be useful to take up the concept of self-activity as a naturalized mode of agency. I will explicate this by the example of colour as one of the processual elements in Strindberg's celestographs.

Colour systems have been the subject of photographic and filmic analysis; this is especially the case with conceptual art since the 1960s, e.g. in the works of George Landow, Morgan Fisher and Christopher Williams. As the discourse of colour in the late 20th and early 21st centuries focuses on the question of systematization and standardization, technical systems aim at controlling and correcting imponderable colour. At the same time, the aesthetic of disturbance is being integrated into digital devices including smart phones. Apps like FxCamera

5. August Strindberg, 'On Chance in Artistic Creation', transl. by Kjersti Board, 7. See Geimer 2010 (reference 4), 51 ff. and 111 ff., the latter passage with reference in: *Cabinet Magazine*, Issue 3: Weather (2001), <http://www.cabinetmagazine. org/issues/3/i_strindberg.php> (30.12.2012).

6. Art historian Friedrich Weltzien pointed to this analogy in his response at the symposium Jenseits des Dokumentarprinzips (Bevond the Documentary Principle), 15.11.2012, University of Art, Braunschweig.

to Bruno Latour, Die Hoffnung der Pandora. Untersuchungen zur Wirklichkeit der Wissenschaft, Frankfurt/M.: Suhrkamp 2000, 221.



Figure 2 Adrian Sauer, fireworks_2_bg_070402, Digital C-Print 100 x 130 cm, 2011. © Adrian Sauer. Courtesy of the artist. simulate blurring, vintage colours and monochrome toning such as sepia. Thus, the material agency of analogue photography is employed as an aesthetic effect that can be controlled and modulated by the software.

The topos of colour as a photographic actor also comes into play in some works by the Leipzig based photographer Adrian Sauer. Here, colours are not used in the mode of an abstract painterly gesture delegated to chemical processes, but as digital ready-mades. For his series *Fireworks* (2011, fig. 2) Sauer downloaded images of fireworks from the internet and transformed the tonal values in a way that each of the possible 16,777,216 colours in the 8-bit colour mode is represented exactly one time. The fireworks themselves refer to the accidental as well as artificially designed agency of light in the making of the photograph, engendering abstract or flower-like vivid forms. Therefore, it reminds one of an ideology of the creative nature of chance just as it does of the hand of an author controlling the process.

Concerning the digital processing of the image, Adrian Sauer is the author of the software to replace the tones in the pixel structure. The program's goal is to keep the referent of the picture recognizable as well as making the generated pixel structure with its discrete colour

Figure 3

Adrian Sauer, 16.777.216 Farben, Digital C-Print 125 x 476 cm, 2010. © Adrian Sauer. Courtesy of the artist. Each one of the possible 16,777,216 colours in the 8-bit color mode is represented exactly one time, and randomly distributed, in the picture. Due to the distance, the eye cannot differentiate the tiny colour fields when viewing the installation which is why they create an overall greyish impression. fields visible, showing in a self-reflexive manner the logic of image processing itself: The picture reveals a random, but stabilized, state exposing the potential of countless colour combinations. Here, similar to Strindberg's celestographs, the concept authorship is not really left behind, but reconceptualised. It seemingly fades into the background when the otherwise transparent mediality of the picture is highlighted by the emphasized processing. Carolin Höfler has lately referred to this kind of authorship as replacing the author as image maker by the author as process regulator.⁸



8. Carolin Höfer in a discussion at the symposium *Jenseits des Dokumentarprinzips (Beyond the Documentary Principle)*, 15.11.2012, University of Art, Braunschweig. Another example of Sauer's work, 16.777.216 Farben (2010, fig. 3), highlights even more the idea of a picture as self-organizing form. Apart from the picture's format and pixel size, its form is completely committed to the software. Colour, otherwise an instable factor gaining meaning only through its difference in a symbolic system, is organized in computed entities. The colour grades between the entities in the 8-bit colour mode are based on the smallest difference the human eye is able to distinguish before colours are perceived as gradient. Besides the fact that Sauer's monumental digital print quotes Gerhard Richter's Painting 4096 Farben, (1979), whose colour fields are based on the standard 12-bit RGB palette and which was meant as a critique of abstract modernism, 16.777.216 Farben thus makes the borders of the physiological apparatus of the human eye visible.⁹ It also points to the processing of the image itself. Unlike Strindberg's and Polke's experiments with photographic substances, the image processing is not an open-ended process but a chance operation with an analytic task, showing both the systematic order of colours informing our everyday lives and the potentially changing and vivid forms of random pictures, simulating the metaphoric liveliness of the living digital. Within this photographic formation, materiality and immateriality constitute each other mutually, while their relation is transformed in ongoing transmedial operations of de- and re-materialization: from digital data taken from the internet, over image processing to the large-sized exhibition print and its reproduction in book printing or beamer projection.

9. See Adrian Sauer http://www.adriansauer.de/arbeiten/16-m>.

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Conference Materiality/Immateriality in Photography on 24 November 2012 at MUSA Vienna



Andreas Reichinger and Moritz Neumüller

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Master Degree in Art History and PhD degree in Information Management. Working for the Museum of Modern Art, New York (1998/99) and PhotoEspaña, Madrid (2004–2007). Currently appointed as festival curator of PhotoIreland in Dublin and the Academic Director of the European Master of Fine Art Photography in Madrid, Spain. 2009 initiation of the project ArteConTacto (artecontacto.org), working on a methodology to adapt museums and exhibitions for all audiences, including visually impaired visitors. This project will be complemented with an online database of European museums that are open for everybody, available soon at www.museumforall.org.

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Studies in graphic Design and advertising at the University of Applied Arts, Vienna and Elisava Escola Superior de Disseny, Barcelona; working in the creative industries and advertising as graphic designer and art director; director of postgraduate courses at Danube University Krems in the Department for Cultural Studies, Center for Image Science; until recently working at the R&D department at Austrian National Library as project manager of EuropeanaConnect, an EUfunded research project building the European digital library Europeana, bringing together Europe's digital cultural heritage, http://www.europeana.eu/ and work package lead in IMPACT http://www.impact-project.eu, before becoming project manager of the Google Books Cooperation of the Austrian National Library (Austrian Books Online).

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Study of art history at the University of Vienna. Lecturer for media theory at the department for art and culture sciences at the Academy of Fine Arts Vienna; 2003 - 2011 Chancellor for theory and research at the Academy of Fine Arts Vienna. Focus of research at the intersection of media theories, subject theories and spatial theories. Together with Christian Teckert founder of »Büro für kognitiven Urbanismus« (office for cognitive urbanism), and together with Rudolf Taschner »math.space«, a society for mathematics as cultural achievement at the Museumsquartier Vienna. Free-lance curator of several international and national exhibitions. Numerous publications on contemporary art and art theory, among them: Votogravie / Votogravy, Month of Photography, Vienna 2006.

Peter Weiermair, Innsbruck, Austria and Frankfurt/Main, Germany Studies of history of art, German language and literature and philosophy in Innsbruck and Vienna. Art historian, free-lance curator and editor. 1968 - 1979 founder and head of "Forum für aktuelle Kunst" in Innsbruck; 1967 – 1979 curator at Landesgalerie, Galerie im Taxispalais, Innsbruck; 1968 – 76 curator of the exhibition series Prospect (part 4: photography) at Kunsthalle Düsseldorf, Germany; 1980 - 1998 director of Frankfurter Kunstverein; 1998 - 2001 director of Salzburger Sammlung Rupertinum; 2007 - 2011 curator of the annual exhibitions of Frankfurt's guest artists in "Atelierfrankfurt" in Frankfurt, Germany. Lectureships at the Academy of Fine Arts Vienna and the Offenbach Academy for Art and Design, Germany; head of Galleria d'Arte Moderna Bologna and Museo Morandi, Italy; free-lance curator at Kunsthalle Vienna. Owner of Allerheiligenpresse publishing house, Innsbruck. Since the mid-1970ies special focus on photography, espcially on body photography and the history and present of the drawing.

Andreas Spiegl

Jeanna Nikolov-Ramírez







Peter Weiermair



Preview:

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Erratum:

PhotoResearcher No 18 / October 2012, page 37 figure 5: Correct caption: Paul Citroen, Metropolis, 1923, photomontage, 76,1 x 58,4 cm. Special Collections, Leiden University Library.

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