Introduction

On the occasion of Paris Photo 2015, SCHEUBLEIN + BAK presents a selection of rare vintage photographs by Herbert W. Franke, Gottfried Jäger, Karl Martin Holzhäuser and Heinrich Heidersberger alongside contemporary works by Michael Reisch and Dan Holdsworth.

Since the invention of photography in the mid-19th century, by Nicéphore Niépce, Louis Jacques Mandé Daguerre and William Henry Fox Talbot, the medium has mainly been used to reproduce reality in, for example, depictions of landscapes, portraiture and nudes. The first attempts at abstract photography were made at around the turn of the 20th century with Étienne-Jules Marey’s hydrodynamic experiments and August Strindberg’s celestograms. The development towards abstraction was mainly driven by science and new technologies as progressive photographers such as Alvin Langdon Coburn, Christian Schad, Man Ray and Laszlo Moholy-Nagy experimented with new techniques and invented such things as photograms and vortographs (kaleidoscopic images). This happened partly as a reaction to the avantgarde movements in painting (cubism, vorticism, dadaism, etc.).

While, in the theory of painting, the term Concrete Art was introduced as early as 1930, by Theo van Doesburg, the notion of Concrete Photography first appeared in 1967 at galerie actuelle in Berne (Switzerland) on the occasion of a group exhibition with Swiss artists René Mächler, Roger Humbert, Rolf Schroeter and Jean-Frédéric Schnyder. At the same time, a related movement in photography began in Germany and would later find its way into art history as Generative Photography. One practitioner in this field was Herbert W. Franke, a pioneer of computer art, who combined rational physics and mathematics with photographic experiments. His vintage oscillograms from the 1950s and ‘60s are pioneering examples of computer art aesthetics. In them, graphic vibrations - similar to Lissajous figures - were programmed on an analogue computer system and then photographed from the screen of a cathode ray oscillograph.
The philosophical background of the movement was laid out by the German philosopher Max Bense who defined the goal of Generative aesthetics as, “the analysis of art-generating processes into a finite number of constructive steps. Thus, Generative aesthetics concerns definite aesthetics. In the ideal case, it leads to the development of programs that serve to produce aesthetic states with the help of program controlled computers”. Based on this philosophy, Kunsthauß Bielefeld opened the pivotal show Generative Fotografie in 1968 with works by Gottfried Jäger, Hein Gravenhorst, Kilian Breier and Pierre Cordier.

Generative photography articulates the idea of artistic constructivism joined with the numerical programming of apparative systems and can be classified as a form of concrete art. Most emblematic for this mathematical creativity are the “Pinhole Structures” by Gottfried Jäger, which the artist created with a self-constructed multiple pinhole camera obscura and titled using a numeric programming system. The three-part tableaux, shown at Paris Photo this year and containing 22 small black and white images and four large color images, is Jäger’s magnum opus of computer art and was presented at the legendary computer art exhibition “Tendencies 4” in Zagreb in 1969.

Meanwhile Heinrich Heidersberger, who had started in 1953 with what he called Rhythmograms, adapted experimental forms of kinetic op-art - as celebrated in William C. Seitz's show The Responsive Eye at the Museum of Modern Art in New York in 1965 - to the medium of photography by building a pendulum machine (“Pendelmaschine”) which helped him to produce three-dimensional light-drawings on negatives. These miraculous figures were highly acclaimed by the film director Jean Cocteau who gave away some of these vintage photographs to his companion Pablo Picasso and claimed „the connection between man and machine“ as being characteristic of their time.

Jäger’s tireless efforts as an artist, curator and theorist led to the establishment of a class for photography at the Werkkunstschule in Bielefeld in 1966 and since then, he and Karl Martin Holzhäuser have continuously taught the theory of Generative photography, their yearly symposiums in Bielefeld now legendary. Importantly, in 1975, they published the manifesto-like compendium Generative Fotografie with a foreword by Herbert W. Franke.

The notion “to play against the apparatus” by theorist and philosopher Villém Flusser set the tone for this particular style of photography and the movement itself transmitted influential ideas that have radiated onto the art of successive generations of international artists. It can be seen as paving the way for the fields of computer aesthetics and cybernetic art and later leading to the discourse on data images and digital photography which is ongoing in the 21st century.

One of the most pronounced examples of the ideas of analogue computing systems being transmitted into the digital era can be witnessed in Michael Reisch and Dan Holdsworth’s latest contemporary works, which have left behind the conventional understanding of photography.

Georg Bak, 2015
**Herbert W. Franke (* 1927)**

*Untitled, 1962*
From the series: analogue graphics
Vintage ferrotyped gelatin silver print on Agfa-Brovira paper
24 x 18 cm

**Herbert W. Franke (* 1927)**

*Untitled, 1952/1954*
From the series: light forms
Vintage ferrotyped gelatin silver print on Agfa-Brovira paper
24 x 18 cm
Herbert W. Franke (* 1927)

Untitled, 1956/1957
From the series: analogue graphics
Vintage ferrotyped gelatin silver print on Agfa-Brovira paper
24 x 18 cm
Concrete Photography¹

Only recently have art scholars realized that Concrete Photography can – and must – be recognized as a new form of Concrete Art². As a new descriptive term for pictures that have long been familiar, it joins such comparable genre designations as Concrete Painting, Concrete Music and Concrete Poetry. Concrete Photography is also a branch of general photography. Yet until recently, there was no corresponding definitive theory and no history or other coherent characterization – despite the fact that photographers to whom the term applies have been around for quite some time and have attracted significant attention in response to corresponding photographic achievements since the early years of the 20th century. Such achievements include the Vortographs of Alvin Langdon Coburn (1917), the Schadographs of Christian Schad (1919) and the photograms produced by László Moholy-Nagy at the German Bauhaus beginning in the early 1920s. And they also include works done by Czech avantgarde photographers during the interim between the World Wars as well as numerous new approaches in international photography, which are known by such terms as experimental, subjective and generative photography. These currents continue to exert a decisive influence today, yet their history is scarcely mentioned in the annals of established Concrete Art. One reason for this may be that, until recently, no one suspected the existence of an autonomous world of quiet images from the inner life of the apparatus behind the omnipresence and persuasive power of the conventional photograph. Yet if we turn our gaze inward and look at and into this apparatus, we encounter an incomparable universe of fantastic images: concrete photographs. Only very few have recognized their beauty and their great significance to date.

Gottfried Jäger (* 1937)

The Image disappearing behind itself 2010, 1, 2, 3, 5, 7, 8
From the series: photo paper work I
Unique gelatin silver baryta paper prints
each 24 x 18 cm / 40 x 30 cm (framed)
Gottfried Jäger (b. 1937)

*Pinhole Structure 3.8.14 F 2.4, 1967, February 2008*

From the series: Pinhole Structures

Multiple camera obscura work, gelatin silver print (first print: ed. 1/1, February 2008) on baryta paper type 111 (white, glossy, carton-weight)

50 x 50 cm (framed)

---

Gottfried Jäger (b. 1937)


From the series: Pinhole Structures

Multiple camera obscura work, unique vintage gelatin silver prints on baryta paper,

Three tableaux: each 100 x 100 cm (framed)
Karl Martin Holzhäuser (* 1944)
Lichtmalerei (light painting) 88.27.2001, 2001
Colored light on PE-color paper
120 x 120 cm (framed)
Unique

Karl Martin Holzhäuser (* 1944)
Lichtmalerei (light painting) 88.28.2001, 2001
Colored light on PE-color paper
120 x 120 cm (framed)
Unique
Karl Martin Holzhäuser (* 1944)
Mechano-optical examination 17.1975, 1975/1999
Exposure on color-film, b/w baryta paper
50 x 40 cm (framed)
Edition 5/5

Karl Martin Holzhäuser (* 1944)
Exposure on color-film, PE-color paper
40 x 30 cm (framed)
Edition 2/3
A letter from Jean Cocteau to Heinrich Heidersberger (1962)

“Heidersberger’s admirable rhythmograms are a proof that chance does not exist for the poets. Or better that they give it a different name.

The link of man and machine seems to be a sign of our time.

Looking at these frozen oscillations, mysterious as the disguise of animals or plants, one can ask if not an enormous cosmic act influences our artist and brings us a music of silence in his work, a silence that is nothing but a sequence of notes that our imperfect ear cannot perceive. I want to compare Heidersberger’s ouevre with the rebellion of an insect or a flower, tired of observing the laws of their kind. It happens that spiders change the structure of their nets under the influence of drugs and threads become dangerous snares.

Let’s admire even if we cannot understand! That’s the only way to escape the darkness of the cartesian philosphy.”
Heinrich Heidersberger (1906-2006)
Rhythmogram (rhythmogram) no. 3782/75, approx. 1960s
Camera luminogram, vintage gelatin silver print on baryta paper type 111 (glossy)
24 x 18 cm

Heinrich Heidersberger (1906-2006)
Rhythmogram (rhythmogram) no. 3782/210, approx. 1960s
Camera luminogram, vintage gelatin silver print on baryta paper type 111 (glossy)
22.8 x 17.9 cm
Heinrich Heidersberger (1906-2006)
Rhythmogramm (rhythmogram) no. 3782/201, approx. 1960s
Camera luminogram, vintage gelatin silver print on baryta paper type 111 (glossy)
24 x 18 cm

Heinrich Heidersberger (1906-2006)
Rhythmogramm (rhythmogram) no. 3782/212, approx. 1960s
Camera luminogram, vintage gelatin silver print on baryta paper type 111 (glossy)
30,3 x 23,9 cm
Bernd Stiegler: “Generative” and “concrete” photography started in the 1960s. How would you situate or locate your own approach in relationship to this tradition? Did the so-called digital revolution change the very nature of photography?

Michael Reisch: One has to be very aware of the changed preconditions for photography in 2015. The movements of abstract and concrete photography started from an analogue concept of reality, and their ways of working, in some cases, could be understood as predicting the digital, which is amazing from today’s perspective. Now however, with the current conditions that digital has created, reality itself is already way more abstracted; which makes the starting point for contemporary approaches, including depictive ones of course, completely different and I try to explicitly internalise the digital in my way of working.

Regarding the digital field, the difference between representational, abstract and concrete seems to lose relevance and, as I see it, the three states seem to merge against the backdrop of the digital. Traditionally, photography transforms a representational world into data, the direction here being from the real towards the digital, which defines the digital as a function of concreteness and meaning; the outcomes, the transformations, can of course be abstract, but the source is always representational. But, following recent cultural changes, one could also understand this the other way round: the real as a function of the digital. Seeing it like this, the digital as first of all a neutral tool, electronic 0-1 coding generating equally valued abstract, concrete or representational outcomes, or any mix of these depending only on the particular 0-1 combination, there is, as a starting point, an independent structural and formal potential instead of a factual world, and for my work I don’t see a structural difference, under these digital preconditions, between working in an abstract or depictive way.

Nevertheless, talking about aspects of photography, with the medium’s depictive aspects momentarily facing their own limitations regarding the virtual, concrete and abstract aspects of photography seem to be able to get a different grip on “reality”, going into the internal structure, the software, the algorithm, but they also seem to be able to picture, or to “represent”, an abstract digital reality, in a very photographic sense, against the backdrop of photography.

The re-evaluation of concrete and abstract photography, especially generative photography, is, in my eyes, mostly to do with the fact that its objective mathematical substructure has a clear parallel to the algorithmic substructure of the digital. Generative photography’s idea of emergence, of generating forms out of a mathematical context instead of depicting forms as part of a naturalistic program, predicted, in an amazing way, the relevance of the digital field with its constructive nature that, nowadays, is of such importance.

In its origins, I don’t see my work as part of a tradition of concrete or generative photography, it developed out of a depictive photographic context and turned abstract/concrete over time. However, I’ve also never considered my approach exclusively depictive or abstract by nature, but rather as a back and forth with both as counterparts, a synthesis of these under changing cultural conditions and with generally delimited ideas of the abstract, the concrete and the representative.

Bernd Stiegler - Michael Reisch, October 2015
Michael Reisch (* 1964)

Untitled 15/008, 2014
Archivable Ink-Jet-Print, framed behind museum glass
120 x 90 cm
Edition 6 + 2 AP

Michael Reisch (* 1964)

Untitled 15/009, 2015
Archivable Ink-Jet-Print, framed behind museum glass
160 x 120 cm
Edition 6 + 2 AP
Dan Holdsworth - Spatial Objects

Spatial Objects is the result of Holdsworth’s ongoing enquiry into contemporary photographic processes, and what he calls the „surface interface of the image“.

In computer science, Spatial Objects refer to values that exist within a specific place simultaneously in the real and the virtual spheres. As in Holdsworth’s Transmission, the starting point for Spatial Objects is geological mapping data of the American West. But while in Transmission the resulting images echoed both nineteenth-century and new-topographic photographic languages, Spatial Objects draws on the vocabulary of Minimalist sculptural practices of the 1960s and 1970s. Holdsworth transposes aerially scanned scientific data of geological landscapes into 3D virtual models, working deep within the material to explore the architecture of the virtual. Going beyond the limits of representation, what we see in these works are the edges and fragments of the pixel resolved within the geometry of the interface itself, transformed into structures of pure color and light.

Installation view: Dan Holdsworth. Spatial Object (Installation view) Southhampton City Art Gallery (UK), 2015

Dan Holdsworth (* 1974)
Spatial Object no. 154, 2015
From the series: Spatial Objects
C-Type Fuji Ultra gloss print, UV Perspex and dibond aluminium, wood, stainless steel, lacquer
230 x 105 x 15 cm (base) closing to 0,5 cm (top)
Installation view: Against Photography, SCHEUBLEIN + BAK, Zurich 2015