

## Combinatorics of the Photographic

The work of Edgar Lissel and Claus Stolz

by Paul Brakmann

In 1832, Nicéphore Niépce drew up a list in his journal. He was seeking a new name for the images that, for several years, he had been fixing on various materials with and without the use of a camera—solely through the influence of the light. Yet it was exactly this light that was missing among the Greek words he carefully wrote in a column in his journal. Instead, the most important concept for Niépce was that of nature—*physis*. However, he was uncertain exactly how nature was involved in the creation of these images, precisely how this photographic process of reproduction was to be understood: Was it a drawing—*graphie*? Or perhaps an impression—*typos*—instead? A reflexive aspect—*aute*—was also to be considered. Niépce approached this problem by means of combinatorics. One after the other, he tried out potential connections between the terms: *physautographie*, *physautotype*, *iconoautophyse*, and so on. Niépce's attempt at a nomenclature shows that, for him, nature was both active and passive in photography. Nature is represented through the products of the process, but it also brings forth these products. Niépce was not alone in approaching the essential definition of photography in the light of an emphatic concept of nature: His contemporary William Henry Fox Talbot, who also produced photographic images soon after him, likewise wrote of their creation that they “are impressed by Nature's hand.” Thus, for Talbot, the active and the passive part of nature in the photographic image merge in the act of impression.

Both Talbot and Niépce seek—in the words of Peter Geimer—to bring a “moment of withdrawnness” into their terminological approach towards photography: They do not want to describe the automatism of the image's creation solely as an absence of human intervention. Instead, what finds expression in these early terminological formations is a claim that is also found in more recent definitions of photography's essence: it is defined positively, based on the concrete “how” of its coming about. Roland Barthes has prominently traced the aspect of the photographic image's irreducible witnessing, its “that-has-been”, back to the immediate physical contact between the light coming from the object and the surface of the photographic

material. This indexicality of the photographic image, the necessary and directly physical causal connection between it and its referent, already resonates in Niépce's as well as Talbot's conception of the reproductive process as an impression. At the same time, in their cases, indexicality appears in the light of the Romantic philosophy of nature, with the photographic image appearing as the product of an autogenetic process whose subject is creative nature itself.

With regard to these definitions, the digitization of the photographic process takes the form of a radical rupture. In the digital record, the direct and continuous transfer—the latent presence or directly visible trace of light's influence within the photochemical image—is essentially replaced by a transformation: the translation of light intensities into discontinuous numerical values. An information-technological abstraction has now replaced the impression that is withdrawn in its creation, but directly visible in its result: The digital photo converges with every other kind of digitally stored information in a mass of data, from whence it emerges as an image only in the act of viewing—and, furthermore, in the same manner as nonphotographic images. Following photography's digitization, it is no longer possible to speak to the same extent of the referent's "adherence" in the photograph, as Barthes had put it, and this development has often been experienced in terms of a complete loss of photographic images' indexical character. In the early 1990s, picture theorists like W.J.T. Mitchell accordingly prophesied the "death of photography" and the beginning of a post-photographic era. However, it has apparently never come to that: In spite of their fundamentally different ontological status, the discursive forms that emerged out of the traditional photochemical image have persisted in the handling of digital photographs and their ongoing interpretation as authentic documents of reality. Digital photographs continue to furnish the suggestion of reality that had once been guaranteed by indexicality, but they have simultaneously become just another image among images in terms of their data structure and manipulability. Wolfgang Ullrich has described the response to them as a "digital nominalism" that sees the digital photographic image as simultaneously the imprint of reality and as an artifact. In the course of its digitization, photography has detached itself from its concrete mediality, it has become a formal effect encased within a historically developed discursive formation. It thus seems logical that this loss of medial identity has led to a renewed interest in the traditional photochemical techniques that offer access to the archetypes and models of this postmedial photographic.

Edgar Lissel and Claus Stolz respond to the postmedial state in which photography has since found itself. In an archaeological manner, they excavate the foundations of a photographic that has transformed from a technical medium into a knowledge formation. In doing so, they do not use photography primarily as a means to reproduce external reality; instead, setting out from elementary phenomena of the becoming and perception of the photographic image, they explore that mysterious aspect of withdrawal, which had already fascinated Niépce and Talbot at the historical origin of photography. Just as the boundary between art and science became blurred in the practice of these two historical pioneers of photography, Lissel and Stolz also use aesthetic means for their research, and nature once again repeatedly appears in the role of an actively productive potency.

Niépce called his photographs *heliographs* before occupying himself more intensively with the issue of naming them. This term, formed in analogy to the lithograph, makes it seem as though the sun were drawing with the power of its rays, just as it uses them to enable warmth, visibility, and life. Stolz has also named a group of his works *Heliographs*. He takes this early name literally and uses it to stage an attack on the mature form of chemotechnical photography. As the results of radically long exposure times, in which Stolz focuses the disc of the sun directly onto various photographic materials, his *Heliographs* take up the theme of light's potency as the fundamental prerequisite for photographically generating images: The sun draws by being brought into the center of the picture—operating not via the detour of chemotechnical processes but directly on its media. Its concentrated rays cause the photochemical emulsion to bulge, rupture, and become charred. At the same time, individual qualities of the material that remain invisible when it is used in the intended manner emerge in the *Heliographs* created according to Stolz's methodical procedure. He also further discloses these qualities in the course of their documentation through reproduction lighting. The results are concrete photographs: diverse articulations of form and simultaneously traces of a creative as well as destructive energy source that photography shares with every process of animate nature. The individuality of the material also plays a role in Stolz's *Lichtbilder*, a German synonym for photographs that literally means "light images." Here something is brought to light and into the picture that normally remains hidden from view: the anti-halation backing on the reverse side of photographic plates. This substance prevents a halo from forming around bright points in the image and is normally

washed away during development. Using historical plates that have survived for decades in unopened packages, Stolz makes this means of preventing a photographic nimbus visible. At the same time, streaks, scratches, dust, and fingerprints identify the photographic material as an object that has been made, is subject to time, and bears the traces of its storage and decay.

However, for Niépce, the term *heliograph* highlights only a single aspect under which photography can be understood. In his later search for a name for his invention, he continually combined his Greek terms into new compounds, which he wrote one under the other without conclusively opting for any one of the specific aspects emphasized by each. Thus, he combined *eikon* – *aute* – *physis* to form the name *iconautophyse*: the image that nature produces of itself. Lissel occupies himself with the fascinating phenomenon of *autopoiesis* in his work *Vanitas*, from the series *Bacterium*, in which cyanobacteria become the vehicle for photographic images. Lissel uses their phototaxis, the fact that these bacteria move towards light, to create ephemeral, biological photograms: He lays natural objects on Petri dishes containing cultures of the bacteria and then directs light on them. The bacteria gather where these objects do not obstruct the light. Here, animate nature generates documents of that which perishes: a slice of apple, flies, leaves, a fish—symbols from the iconography of Baroque *vanitas* still lifes, whose organic originals decay during the process, which takes days. Dissolution, on the one hand, is juxtaposed with the creation of images, on the other; photography thus appears within this constellation as a slice through a natural process of becoming and passing—to which its fragile products are ultimately also subject.

Indexicality, which is such a central concept for chemotechnical photography, emerges in another word formed by Niépce: *Physis* – *aute* – *typos* become *physautotype*, the impression of nature itself. Like in a wax tablet, the visible impresses itself into the photographic image and is conserved by it as a past present. Plato already describes the faculty of memory in a very similar manner: Here again it is a wax, something spiritual, the gift of the Muse Mnemosyne, in which perceptions and thoughts—like signet rings—leave behind impressions. In the world of images, viewing the “mirror with a memory” (as Oliver Wendell Holmes, one of its early commentators, called the photograph) not only enables us to render the past present like no other image before—the manner in which it functions also recalls that of memory. Lissel’s *Mnemosyne II* develops this analogy. The walk-in installation

inverts, so to speak, the photographic configuration consisting of light projection, darkroom, and sensitive surface: In the interior of a darkened, but not entirely dark room, a surface with thin, alternating, vertical stripes of mirrors and fluorescent pigments has been placed across from a flash bulb. When people step in front of this *tabula rasa*, they initially encounter themselves in the mirror image, in all their actuality. However, movement sensors then set off the flash and cause the surface to glow: The mirror image is overlaid with a silhouette featuring identical contours – a conserved past, which viewers can step out of, quickly fades and is soon replaced by a different shadow at the next flash. Here, the “mirror with a memory” becomes a metaphor that also incorporates forgetting.

Lissel's biological self-portraits are not impressions in the matrix of another material but traces of the body that come from its own surface: His hands, his arm, and his torso leave behind living images of themselves. Bacteria also serve as the medium of the image in *Myself I*; here, however, it is the ones that live on the surface of our skin. They become the vehicle of the image through Lissel's pressing his body onto an agar-based nutrient solution. Over the course of several days, that which otherwise lives symbiotically with the body multiplies and lives separately from the body, in order to finally create—in the form of a chromatically differentiated culture—a monument to it. Detached from their former host, with whom they lived in fragile balance, the bacteria also create their own environment for themselves, which stands in opposition to their previous one: For humans, Lissel's body images are toxic and so they were eventually destroyed. What remains are photographs—produced using a special lighting method—of this laboratory-like experimental arrangement, which results in an image of the experimenter himself.

With the expression *alethes* (true) Niépce positions photography within an epistemological field. The utopia of visual representation's detachment from the influence of human fallibility resonates in *physaletotype*, the true impression of nature: Photography appears as true in the sense of a mechanical objectivity whose paradigm in the realm of the visible is the camera obscura. Through the fixation of its fleeting image, a seeing and depicting that optically only served a supporting role become an autonomous artistic process. At the same time, the metaphorization of the camera obscura as a model of the epistemological process itself also lives on in its photographic version, together with its splitting of the world into an inside and out: The device's aperture or lens becomes a neuralgic point mediating between the

Cartesian *res cogitans* and the *res extensa*, between the inner mental world of the viewer and external reality. Lissel makes this distinction into the subject of his *Räume – Fotografische Dekonstruktionen* (Rooms – Photographic Deconstructions). Private living rooms become models of interiority for him in the form of subjective microcosmos. Lissel transforms them, together with their furnishings, into walk-in pinhole cameras: A small opening in the blacked-out windows projects an image of the outside world—scenes from German cities—onto a large sheet of photo paper attached to the opposite side of the room. Two places and two processes of photographic imaging simultaneously inscribe themselves there: The “out there” of the view through the window, as an upside-down perspectival projection of light, and the “in here” of the furnishings, which interrupt the projection and appear in the image photogrammetrically, in the form of white silhouettes. In this way, Lissel uses photographic means to sketch a reflective space in which the experience of external reality presents itself as a complex intertwining of subjective preconditions and a realistic impression.

However, the truth of the photographic image also very concretely reveals itself to be a precarious construct when the possibilities of retouching have become so refined that they now leave no trace at all of their intervention in the image. Stolz's *Bird on Fence Post I/II* constructs a case of this kind with the help of an old glass negative, which—in itself—seems largely unsuspecting in terms of manipulation. Two versions of the image stand beside one another: We recognize a fence post in each, but a little chickadee has only landed on one of them. Thus, the other image bears witness not just to what is found in it, but also and primarily to an absence. The chickadee has not flown away, because minor blemishes allow us to unambiguously trace both versions back to the same original. However, it remains unclear whether it is really the absence that is artificial—whether Stolz has removed the bird from the original—or whether it is not actually the presence that is entirely fictional. Thus, a fundamental dubiousness attached to photography—not least since its absorption into the world of digital images—becomes explicit in Stolz's diptych. However, Stolz emphatically maintains his stance regarding reality's appearance in the photographic image. Like Roland Barthes, who recognized photography as a “message without a code,” which is distinguished by an element—albeit scarcely perceptible—of direct reference that evades every socially constructed meaning, Stolz is also interested in the point at which the photographed reality is entirely on its own. He found this in an old

photographic plate he ordered from Japan. Without date, without attribution, without context—the meaning of this oblique shot of a seascape remains open. The title of convenience *Ocean Sunrise or Sunset, Japanese*, under which Stolz purchased the plate, also testifies to its irretrievability. Here, a photographic image remains entirely self-contained—and develops a special beauty precisely in this way.

*Iconoautophyse*, *physautotype*, and *physaletotype*, but also *physautographie*, *parautophyse*, and *alethophyse*—Niépce never arrived at a final decision in favor of any one of the terms he created. Instead, in a note added later to the sheet from his journal, he radicalizes the attempt at developing a nomenclature. He seems to consider the idea that, if the relationship between nature and its representation in photography is so difficult to define, perhaps photography can simply be understood as nature *itself*: as *physaute* or *autophyse*? Concentrated within these emphatic names are once again the experience that photography suspends itself in its viewing, so to speak—making it the perfect analogy for nature as well as its conceptualization as an image whose author is nature itself. Two works by Lissel and Stolz similarly channel the interest in the photographic into an engagement with nature itself. The title of Lissel's series *Natura facit saltus* alludes to the historical scientific axiom that asserts precisely the opposite: that nature does not make leaps, that all its processes unfold continuously. On a black ground, Lissel presents photographs of natural objects that allow us to identify the process of their formation: crystallization, sedimentation, stratification. The activity of a *natura naturans* extended over years and centuries in them, but it is nonetheless fixed in the stone like a single instant—and their photographs appear in the form of momentary snapshots. In Stolz's *Kammerspielen* (Chamber Plays), on the other hand, the human also enters into natural events. What, at first glance, presents itself as sober botanical photography in the tradition of Karl Blossfeldt, proves upon closer inspection to be an illusionary combination of artificial and natural materials: plastic poppy flowers rest on natural stems, a holly plant blossoms as an artificial gerbera, and Ping-Pong balls emerge from some of the calyxes. Like Joan Fontcuberta, who compiled a herbarium of pseudo-plants out of a repertoire of organic material fifty years after Blossfeldt, Stolz plays ironically with the claim to a photographic revelation of a vocabulary of floral forms. However, in his work, these forms no longer appear as a pristine natural beauty but, instead, as always already reshaped and reproduced by man. In these minimalist still lifes, the ephemeral and enduring, horticultural and industrial, grown

and arranged become united into formations that blur the boundary between culture and nature.

It is the diffuseness of this boundary that emerges as a theme in the work of Lissel and Stolz. In their works, the photographic resembles natural processes in stabilized form: Light-based images of various kinds, spontaneous mimesis in unexpected materials. The world suddenly appears to be filled with processes—among which traditional chemotechnical photography seems like just one realization of what are, in principle, infinite possibilities that allow the cultural utilization of nature's persistent tendency to represent itself. At the same time, this technologically established photography does not solely seem like a conserved visibility either; instead, it itself appears as a part of the continuum of the material reality that is reproduced through it. Thus, in the work of Edgar Lissel and Claus Stolz, photography is not just a technological artifact but an opportunity to repeatedly reestablish a relationship between nature and image—an opportunity that presents itself in the face of the digital image just as it did at the beginning of the photographic era.