# "The Beast"

## On the Photographic Staging of the Large Hadron Collider at the Nuclear Research Center in Geneva

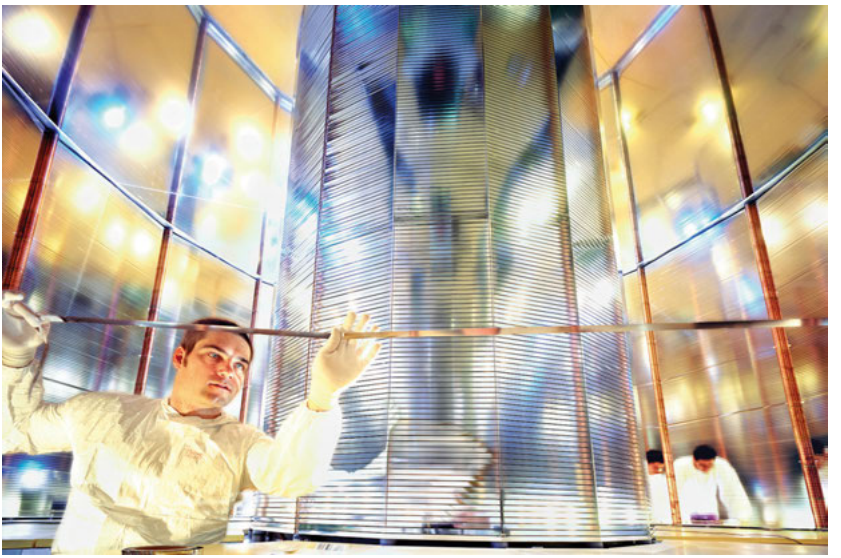
*LHC*, the book on the construction and set-up of the Large Hadron Collider at *CERN*, the European Organization for Nuclear Research, was from the very beginning promoted with powerful visual metaphors and bombastic rhetoric. The visual urgency of these motifs left no doubt that this was a photographic project operating at the borderline of what can be shown. How could the processes in connection with the particle accelerator, the Large Hadron Collider, be shown? The main challenge obviously existed in developing a visual language that would make it possible to illustrate these operations, most of which are immaterial and transcend our human powers of imagination. The photos in the *LHC* volume were taken by Peter Ginter, 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 assembled in the *LHC* publication are the yield of a 15-year documentation of the processes around the Large Hadron Collider at *CERN*. "The beast" or "world machine," (Franzobel, 2011, p. 56) as the largest particle accelerator on earth has been called, is able to accelerate protons to almost the speed of light. It subsequently brings them to collision in a 27-kilometer ring housed in a subterranean tunnel. This makes it possible to simulate a scenario comparable to the situation immediately after the Big Bang.

In the following, I would like to give a close reading of Ginter´s photographic response to the challenges faced at *CERN*. The first striking thing noticeable in his photographs is the highly charged atmosphere created by the lighting effects of these images. The question is how to align these light-enhanced pictures with technology photography in the conventional sense? Which visual discourses do so-called technology pictures follow today? As Peter Ginter's photos seem to suggest, a couple of standard models of picturing high tech institutions 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 a type of radiant lighting owed to digital post-production. The spirit prevailing in some of Ginter´s *LHC* photographs can be best described as awe. Rolf-Dieter Heuer (2011), *CERN*'s director, calls Ginter's pictures "an impressive hymn to research" (p. 13). Most of the

photos are jubilant, solemn, and work with an almost religious pictorial rhetoric. The protagonists in these photos of a digitally generated afterglow become astral beings and part of an illuminated world that seems to be conducive to mental clarity and allows for a type of knowledge production that is without failure. They seem to be far removed from a more mundane working environment and apparently act in line with a mission that is legitimized by the strong and all-encompassing light. In Ginter´s photos, the *CERN* crew becomes enlightened in the real sense of the word .The supernatural lighting turns the formulas on the board into the proverbial "writing on the wall" and invests them with a sense of a revelation. (Fig. 1/2)

## Glossy Surfaces

In Peter Ginter´s version, *CERN* becomes an environment of glossy surfaces. Metal components, tubes, copper wires, the crystals of the CMS subdetectors, the "big wheel" made of brass, etc., all shine. 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" (Krauter, 1997, p. 9). The sight of shining, precious metal could result in experiencing levitation and transport the believers to higher spheres. (Fig. 3) As described by Andreas Cremonini (2005) in his essay "Über den Glanz," ("On Brilliance"), in many cases brightness can develop an "aesthetic life of its own, […] which transcends its indexical function of being an expression of the nature of an object" (p. 222). If one considers shininess as a special case of a reflection, these reflections do not necessarily mirror the empirical world in a realistic way. When light hits concave, convex or moving surfaces, the reflected surroundings appear anamorphotically distorted and develop a life of their own. A hardly noticeable shift of the light source or the reflecting object can immediately result in further modifications of the reflected reality. At the same time, reflections on shiny surfaces are extremely dependent on the position and angle of the viewing subject; Glint is ephemeral and can therefore not be counted among the stabilizing aspects of our perception. In the eyes of the phenomenologist, the viewer is also challenged and affected by brilliance because it is accompanied by a kind of blinding and the dissolution of the active gaze. From this dissolution of the active gaze it is only a minor step to the conclusion that "this light, heralded by an irreal, intrinsic brilliance, is not of this world" (Cremonini, 2005, p. 224).



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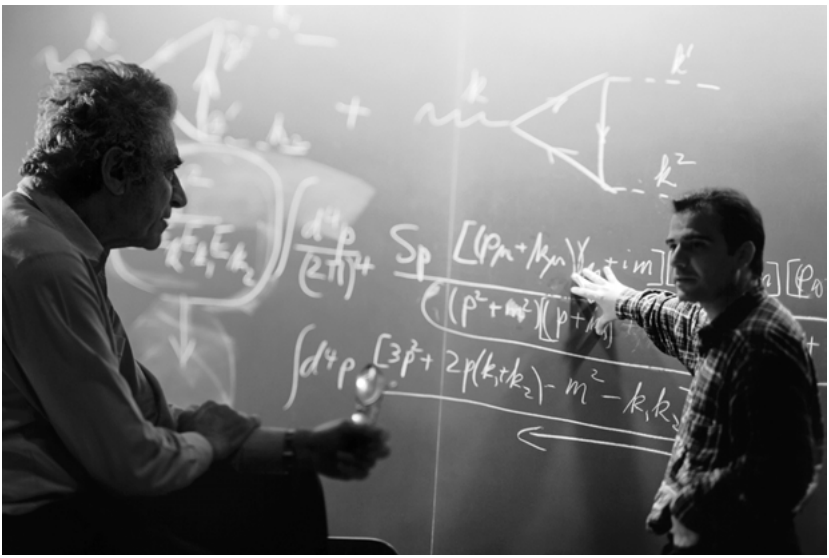
Peter Ginter, LHC Publication
*Edition Lammerhuber*, p. 127



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Peter Ginter, LHC Publication
*Edition Lammerhuber*, p. 43

## Computer Enhanced Documentary Photography

However, in reality everything is actually much more banal, and shiny technology in contemporary photographs has nothing to do with allusions to a transcendental reality. The animating forces at play are a matter of selecting the appropriate post-production programmes. In this connection, Herta Wolf's (2004) reading of a type of technology photography by Thomas Ruff proves particularly interesting. Ruff's "Machines" cycle from 2003 forms the basis of her analysis. In this series, Ruff dealt with the holdings of the picture archives of the "May" Company, a tool and machinery factory operating in the 1930s in Düsseldorf-Oberkassel. Ruff scanned 60 glass negatives, processed them digitally, and subsequently 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 how far these objects are removed from their original context. (Fig. 4) In Ruff's digitally processed version the workpieces, which were originally photographed for the company's sales catalogue, become floating, dazzling, digitally platonic ideas of themselves. They are transformed into immaculate, hard, shiny objects of a consumer world whose longings they reflect and transport. The objects can stand on their own, stimulate their own desire and become simulacra of themselves. As Wolf (2004) continues to elaborate, Ruff's photos are actually only a final, but logical, step in a process of alienation and decontextualisation which is inherent in any photographic act. The ongoing iconization and virtualization of our world have led to a dispensability of the photographic referent. The machinery parts shown in Ruff's depictions owe their appearance to a high degree to "the codes controlled by the (appropriate) computer graphic programmes" (Wolf, 2004, p. 27). The fact that *CERN* staff members may hardly recognize their immediate working environment in the *LHC* photos should therefore come as no surprise. Ginter´s reportage photography actually creates 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.

## On the Staging of the Man-Technology Relationship

How is the relationship between man and technology staged in these photos? In the beginning of the *LHC* book, a worker appears inserted into the skeleton of the *LHC* construction. In this way, the gigantic technology takes on the character of a framing device for the tiny human. Throughout 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 this scientific-technological order are simulated. Many of the photos develop such force because the actual shape

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Peter Ginter, LHC Publication
*Edition Lammerhuber*, p. 100


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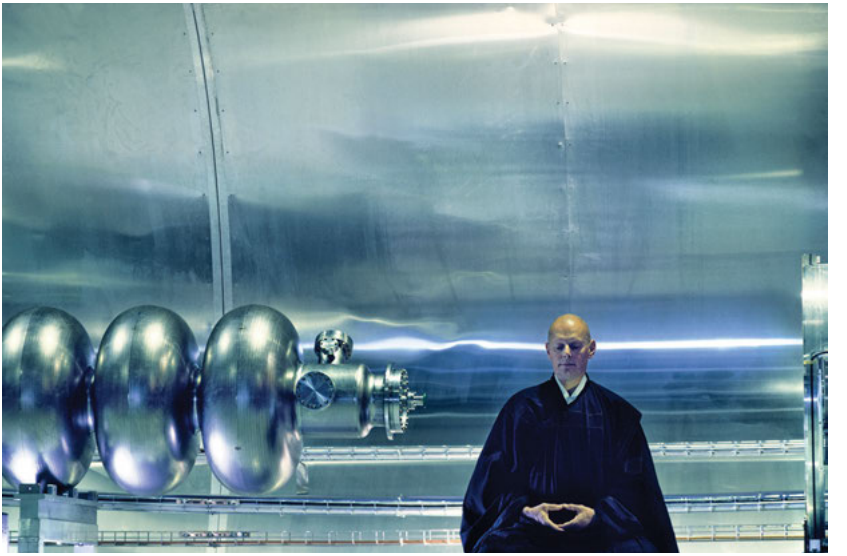
Thomas Ruff, *3237*
2003, C Print, 111cm x 86 cm

of the *LHC* makes it possible to play with the metaphor of the centre and the desires connected with it. These alluring circular forms appear to breathe new life into the bygone "visions of centrality of the Newtonian age" (von Falkenhausen, 2011, p. 343). Workers, engineers, and scientists act as empowered masterminds of processes taking place in what seems to be laid out as a centred world. (Fig. 5)

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. This particular motif was also heavily used to advertise the *LHC* book. Everything surrounding the protagonist flows, shines, reflects, whereas his dark clothing absorbs the light around him and amplifies the impression of substance and weight concentrated in his person. The position of his hands takes up the symbolism of the closed yoga circle of energy. In addition, the white wave of energy, which passes through him at head level, emphasizes his claim to mental power. On the one hand, the image features the figure of the bold monk – ascetic, concentrated, flawless, with absolutely nothing redundant about him, invested with the orders of spirituality and all the weight of a corporeality defying reflections. On the other hand, there is this metallic contraption which appears almost dematerialised due to the reflections flickering across its surface. The photo leaves no doubt as to who is the master in this scenario, and suggests that it would just take the monk a gesture to withdraw the machine or subject it to his will. This master/priest/scientist is in control of the technology and has preserved the power of putting it in its place. (Fig. 6)

In this connection, I would like to establish a connection with Andreas Gursky´s work and his revised version of individuality and personal mastery in view of the overpowering processes characteristic of our time. In Gursky´s digitally processed photos, the individual gets totally assimilated in the structures of a partly technological, partly economic sublime that exceeds the power of comprehension. Humans appear to have shrunk in these vast scenarios of proliferation and multiplication and are no longer assigned privileged positions. At the same time, these protagonists seem to lack any desire to stand out as single persons or distinguish themselves from their digital mates. In comparison, Peter Ginter´s *CERN* personnel are still capable of demonstrating individuality and of finding satisfaction through identification with a strong scientific superego. They, too, work and act in an environment deemed to relativize human power, but that does not show in the images. In this regard, Ginter reveals himself as a representative of a photo-journalistic tradition that can be traced back to the human interest photography of the 1950s. In those images, the human individual was set off against the disaster of the Second World War and reintroduced as a carrier of hope and dignity. As a photographer who is indebted to this tradition, Ginter has to picture the *CERN* staff as empowered subjects that can live up to their grandiose environment.



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Peter Ginter, LHC Publication
*Edition Lammerhuber*, p. 209 / 46


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Peter Ginter, LHC Publication
*Edition Lammerhuber*, p. 105

## Animated Machines

With some of Ginter´s photographs, Felix Guattari's term "machinic animism" (Melitopoulos & Lazzarato, 2010, p. 103) comes to mind. As is well known, Guattari propagated the concept of a decentralised subjectivity that also included the object as a bearer of dimensions of partial subjectivity. This "polysemic, transindividual and animist subjectivity" – or "subjectity" (Melitopoulos & Lazzarato, 2010, p. 103) as Guattari called it – is mainly formed in machinic structures such as social, technical, aesthetic, or biological machines. In Guattaris's opinion, animist machinic structures possess their own power of enunciation.Several of Peter Ginter´s images bestow the technology depicted with a kind of energy that results in animated structures. In this connection, his *LHC* photograph showing the arrival of a focussing magnet, produced in the research centre "Fermilab" in Chicago, is particularly telling. What at first looks like the delivery of a piece of technical equipment, turns out to be a celebration of the spectacular arrival of a machine invested with Guattarian "subjectity." The photograph suggests that the focussing magnet, powered by its own will and sense of orientation, reached its final destination without the need for manpower. Its path is marked by dynamic lighting effects. The human personnel are only bystanders at this event. 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 mere astonishment and wonder. The arrival of the focussing magnet is presented as an explicit act to enliven the grey-blue façade and enhance the dynamic forces driving the institution. This is even more interesting as in Guattari´s understanding a machinic organism like *CERN* is a dynamic entity that, in either case, produces its own subjectivity. As the machinery pulls in with such force, one cannot but read this arrival as a demonstration of potency. 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. (Fig. 7)

## Final Comment

Peter Ginter's digital post-production can be interpreted as a way 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 that featured in the newspaper *Die Zeit*. In contrast to Ginter's pictures, the image seems lustreless, dead, uninspired. (Fig. 8) The question is whether all of this sophisticated and skillfully deceptive photographic post-processing cannot simply be attributed to the age-old frustration about the limitations of the photographic medium. Photographers such as Ginter upgrade these records of the factual

and attempt to invest them with an additional dimension meant to increase their appeal and make them blaze, shine and radiate. The question remains: Is Ginter an animist or animator? Is he an animist driven by the desire to take the photographic medium beyond its limits or is he more of an animator in the service of a media society that demands stronger and stronger visual stimuli. Or is he primarily a professional who makes use of the technology available to his craft?

In all fairness, it is necessary to say that not all of the photos assembled in the *LHC* publication follow this sensationalist form of aesthetic. Some of the scenes are reminiscent of everyday work situations, and appear comparatively sober, while some even display a sense of ironic distance to the monumental approach of this project. In any case, Peter Ginter's photos undoubtedly help to legitimize and promote the *CERN* endeavour. By providing the fundamental research being carried out in Geneva with an almost mythical frame and investing it with religious overtones, the processes taking place there become emphatically removed from the sphere of mundane productivity and the various interests involved. When looking at these charged images, no one would question the legitimacy of the endeavour and the money that flows into it. The views of the visitors´ centre included in the *LHC* volume suggest that the institution itself promotes its cause with a comparable rhetoric and also draws on the persuasive power of light.

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Press Photo from "Die Zeit"
July 12, 2012 # 29