RICHARD WILHELMER

Julius von Bismarck with his *Image Fulgurator*, which manipulates other people's photographs.

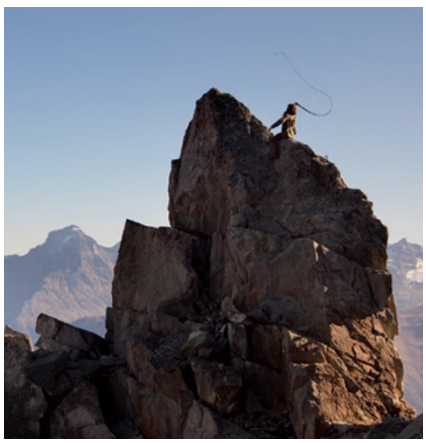
Q&A Julius von Bismarck
Collision creator

Julius von Bismarck is the first artist in residence at the particle-physics laboratory CERN, near Geneva in Switzerland. As he prepares to give the final lecture of his residency, he talks about whipping mountains, hacking photographs and digging into the history of invention.

How did you get into art?
I was a chaotic kid. I hacked machines, grew marijuana, made bombs and experimented with electronic circuits I found in the garbage. Eventually I had to decide between engineering, physics and robotics, and making useless and abstract works of art. I chose to become an artist because I thought it would allow me the freedom to keep working on both abstract and technical fronts. It turned out to be the right decision. Now I make sculptures and installations, and present performances and many other interventions in public space. I have used a lot of technology, but I'll use any medium I can to put my thoughts into other people's brains.

What did you do as CERN's artist in residence?
Among my projects is a moving sculpture representing the three-dimensional shadow of a rotating hypercube. I was hoping to convey the feeling of trying to imagine something you can't perceive, and to make the extra dimensions required by some scientific theories more accessible. Another involves installing motors in the ceilings of industrial spaces to cause their hanging lamps to oscillate slightly. Together, the lamps can create complex geometric patterns to demonstrate physical ideas, such as the astronomical phenomenon of redshift, which shows that the Universe is expanding.

You created something called the *Perpetual Storytelling Apparatus*. Tell me about that.
German artist Benjamin Maus and I built it to dig into the history of invention. The machine hangs on the wall and sketches patent drawings on a 50-metre-long roll of paper. You can upload a novel and it will translate it, sentence by sentence, into a series of illustrations from the US Patent and Trademark Office's database of 8 million patents. It fills in the gaps between unrelated patents using a six-degrees-of-separation-style algorithm that uses citations to find the shortest path from, say, an atomic power plant to a steam engine. We keep the books we feed into the machine secret, but if you know the book you can follow the story. Science fiction works quite well, because people are constantly talking about strange weapons and new technologies. To illustrate a single book, the apparatus must draw for months on many rolls of paper.



J. VON BISMARCK

Von Bismarck whips Alpine peaks as part of his *Punishment series 2011* (image cropped).

You have also made an *Image Fulgurator*. What is that?
It's a sort of weapon that allows me to manipulate other people's photographs without their knowledge. Triggered by a flash, the device projects an image of my choice onto an object exactly at the moment it is being photographed. As a design student I was thinking about how local authorities can decide where advertisements are permitted, and how I could fight that power by hacking into other people's photographs. The first version looked like a gun, but I've now made it small enough to fit in a normal camera so I can smuggle it into press conferences. I superimposed a dove on the portrait of Mao at Tiananmen Square in Beijing. And I projected a cross onto Obama's podium when he visited Berlin in 2008. When the Pope visited Madrid last summer, I worked with Spanish artist Santiago Sierra to project the word 'NO' above him.

What are you working on now?
I have an ongoing series called *Punishment* in which I film myself punishing the natural world. There is a romantic cliche of nature that has been glorified by artists and advertising agencies alike. To punish nature for this hubris, I have climbed into the Alps and whipped its peaks for hours. In forests I have whipped the trees. On a beach in Brazil I whipped the Atlantic Ocean. It has caused me pain and exhaustion. Rage against nature is a fight you cannot win.

What else did you propose at CERN?
I wanted to make a dent in the surface of Lake Geneva, using a controlled underwater vacuum, to make the viewer think about gravity. We are so used to gravity that we don't perceive it. But without gravity the lake's water would just float around in drops. At CERN I learned that gravity is not yet understood at the microscopic scale; no one has observed a gravity particle yet. A dent in the lake could get people talking about physics.

INTERVIEW BY JASCHA HOFFMAN