G. GAUSHARD

Roman Signer's
Library of Marvels
(Fast Version)

A project by Rachel Withers

March 5-April 4 2015
The Rose Lipman Building
43 De Beauvoir Road
London N1 5SQ

Introduction

The Bibliothèque des Merveilles (“Library of Marvels”) is a series of science books launched in 1864 by the French writer, publisher and passionate educationalist Édouard Charton. The themes dealt with in its one hundred and thirty-six small volumes were not prescribed in advance, and they have been described, delightfully, as an “encyclopédie en désordre” or “disordered encyclopedia”.

The same phrase perfectly describes the library of Swiss artist Roman Signer. A self-confessed book-addict, Signer has been collecting from the 1970s onward. His library is not an “Arbeitsbibliothek”, he insists: he doesn’t go there to research art ideas, but to relax, escape and indulge his appetite for information and images of all kinds. The art comes first, and parallels in the worlds of science and culture sometimes emerge serendipitously, after the event. Nevertheless, the books’ diverse subjects and illustrations say much about the enthusiasms and fascinations that lurk in the background to Signer's internationally acclaimed sculptural practice.

Both scientific and cultural topics feature. Volumes on geology and vulcanology, meterology, power and the environment, aviation and polar exploration sit close by histories of art, architecture, photography, cinema and twentieth-century avant-gardism. Books dealing with the expression of the emotions in man and animals, folk and "outsider" art, scientific parlor games, kayaking, the dangers posed by ball lightning and hydraulics in Renaissance garden design, jostle for space with early promotional material on the uses of uranium, manuals describing how to dynamite bridges, inter-war guides on correct silver-service waiting procedures, eighteenth-century treatises on fireworks, siege warfare and electricity, and pamphlets on the obscure Swiss sport of *Hornuss* (to give a necessarily incomplete list).

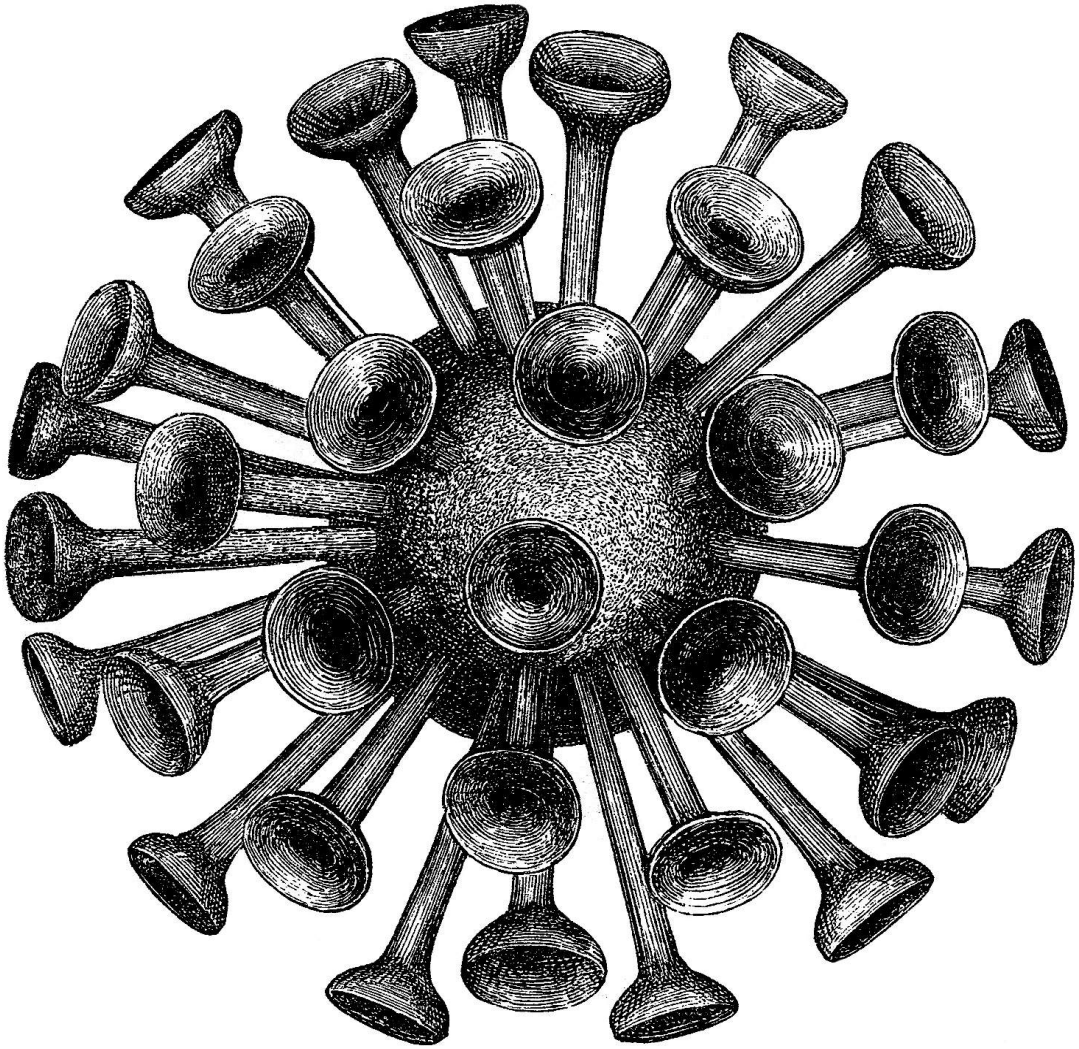
Since 2011, I have been discussing this collection with Signer and selecting, scanning and adapting out-of-copyright pictures for my

own research. Roman Signer's Library of Marvels (Fast Version) offers a preliminary sample of my findings: the tip of the proverbial iceberg, since the project has made me as much an addict of digital imaging, as Signer is of books. My files now contain many hundreds of pictures drawn from the books and printed matter on Signer's shelves. In the not-too-distant future I hope to present these in a more extensive exhibition.

Conveniently, Charton's "disorderly" Bibliothèque features in Signer's collection, so I have adopted its intriguing taxonomy (including Heavenly Marvels, Volcanoes and Earthquakes, The Invisible World, Ancient and Modern Colossi, Gunpowder, Fine Examples of Moral Energy, Torpedoes, Motherly Love in Animals, Electrical Generation, Civic Courage, Providential Harmonies, and the Marvels of the Underworld) to organize my data.

Roman Signer's Library of Marvels (Fast Version) could not have happened without the interest, kindness, energy and generosity of many individuals and organisations, first and foremost Roman Signer and his family: Aleksandra Signer, Barbara Signer and last but not least, ubertechnician Tomasz Rogowiec. The workers at the Rose Lipman Building, a vibrant arts centre managed by arts body Create and The Mill Co. Project, have been warm and welcoming hosts, and the Barbican's curatorial and press teams have been unstintingly supportive. Holding Page, the London based company for limited edition fine art print works, has performed miracles turning zeroes and ones into lustrous pictures. Omni Colour of London has tackled the intricate challenge of wallpapering the Rose Lipman Building's staircase with admirable patience. The technicians of Central St. Martin's School of Art and Design have given invaluable assistance on various fronts. In this project's early stages the encouragement of curator Andrew Hunt was decisive. The same goes for the creative vision and flexibility of Bath School of Art and Design at Bath Spa University, as this project has approached its first public realization. To these, and many others who have helped, immense thanks.

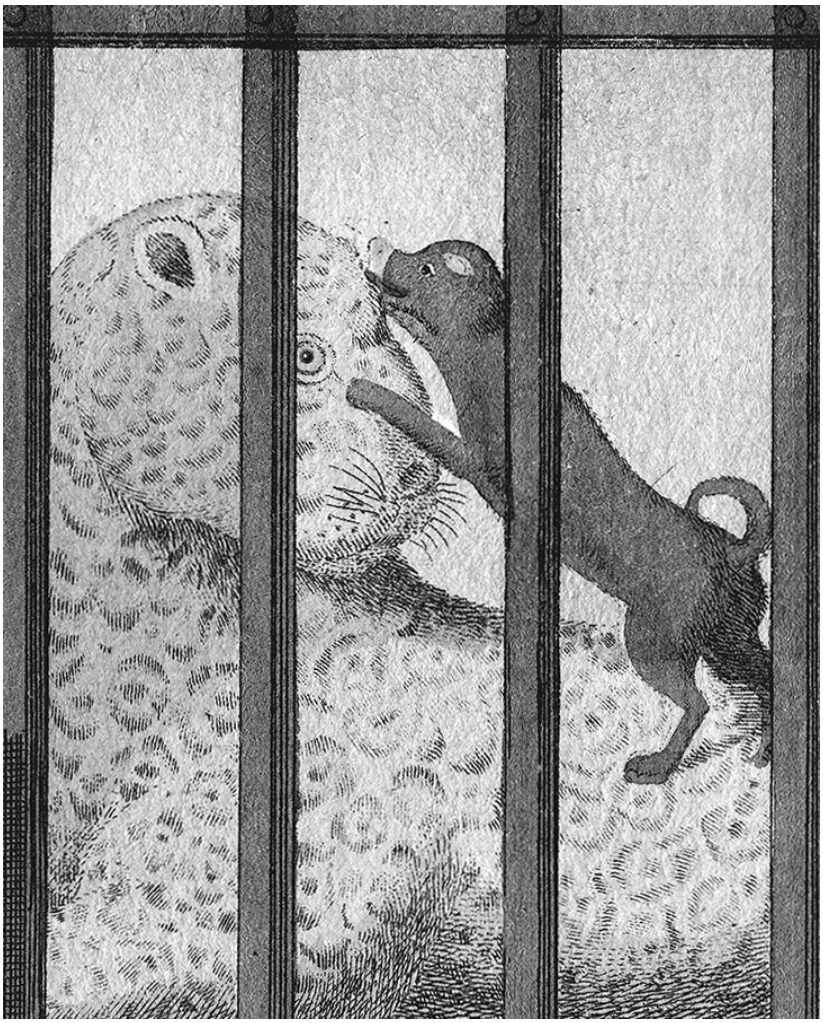
Rachel Withers, March 2015



Volcanoes and Earthquakes: The Mediterranean

Signer has long been fascinated by volcanoes, and in 1997 created a work by rolling a bright red gymnastics ball down the smoky, ash-strewn slopes of Stromboli in Sicily. He now frequently visits Iceland, another location of obvious attraction to any seismophile.

This display includes a nineteeth-century relief drawing of the caldera of Thira (Santorini), now thought to be the origin point of the legend of Atlantis.



Motherly Love in Animals: A Foster Parent?

So far, this picture is the Library of Marvels' sole representation of Motherly Love in Animals. It comes from Berge, Baumgartner and Bohmann's 1804 *Magazine of the Extraordinary in Nature and Art.* Also featuring in the three Bees' magazine: a whirling dervish, the sukolyro (try finding one of those on the internet), the leaning tower of Pisa, Basilio Huaylas the Peruvian giant, snakes, a very frightening plague doctor, the Horse with the Longest Mane and Tail in the World (some kind of early precursor to My Little Pony, maybe), and more besides – but that's all for later. Right now, we

have this endearing pair of affectionate creatures: but what are they, exactly?

Jack Ashby, manager of University College London's Grant Museum of Zoology (admission free, see http://www.ucl.ac.uk/museums/zoology/visit) has kindly sketched some initial ideas about the animals shown. The adult, he suggests, is more likely a jaguar rather than a leopard, since its pelt features complete rosettes with a spot in the centre. Regarding the cub, he advises that both spotted jaguars and leopards may have melanistic (dark coated) cubs if either parent has a gene for melanism. However, he notes, the "cub" here has a short snout plus a short curly tail and (possibly floppy) pink ears: all markers of domesticated animals. In short, it's probably a puppy dog – and a lucky one at that, since the jaguar here seems to be treating it as offspring rather than a light lunch. Perhaps this "extraordinary" picture is an early document of the interesting phenomenon known as cross-species adoption.

The relationship between these two beasts may be touching, but all in all this vision of a magnificent apex predator, caged, is a very melancholy one. Native to the Americas, jaguars are presently classed as a Near Threatened species, their numbers declining as their habitats diminish.

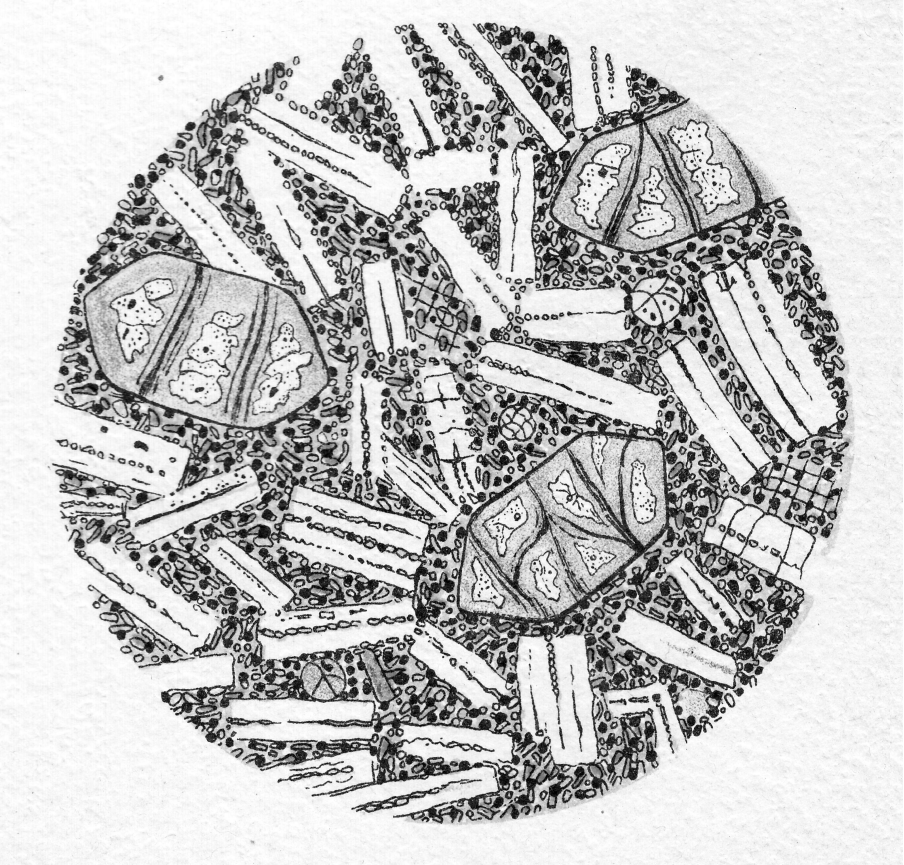
Thunder and Lightning

Thunderbolts and lightning, very very frightening! The journalist, science writer and daring aeronaut Wilfrid de Fontvielle (1824-1914), author of the *Bibliothèque des Merveilles* volume *Thunder and Lightning* (1866), would certainly have agreed with Freddy Mercury on that. This display reproduces various scenes of high-voltage horror (some with more than a whiff of Edward Gorey about them) from de Fontvielle's book. Also from this source: pictures of father and son Benjamin and William Franklin's probably apocryphal "kite experiment" (in which the pair supposedly flew a kite with a damp string and iron key during an electrical storm); St. Elmo's fire (luminous

plasma) playing on the masts of a ship at sea; and a useful anti-lightning umbrella (modern versions available for just £18.49 plus p&p from Amazon.com – be the first to review this item!). Signer has made many works using umbrellas, including, just once, a bulletproof model – but not (at least to my knowledge) a lightning-resistant one.

Also reproduced is a picture of ball lighting, and the cover of Mark Stenhoff's 1999 book on the subject. Stenhoff dubs the phenomenon "an unsolved problem in atmospheric physics" and this remains true. According to one theory, ball lightning is a consequence of transcranial magnetic stimulation: in other words, it's a kind of electrically induced hallucination rather than an "external" phenomenon.

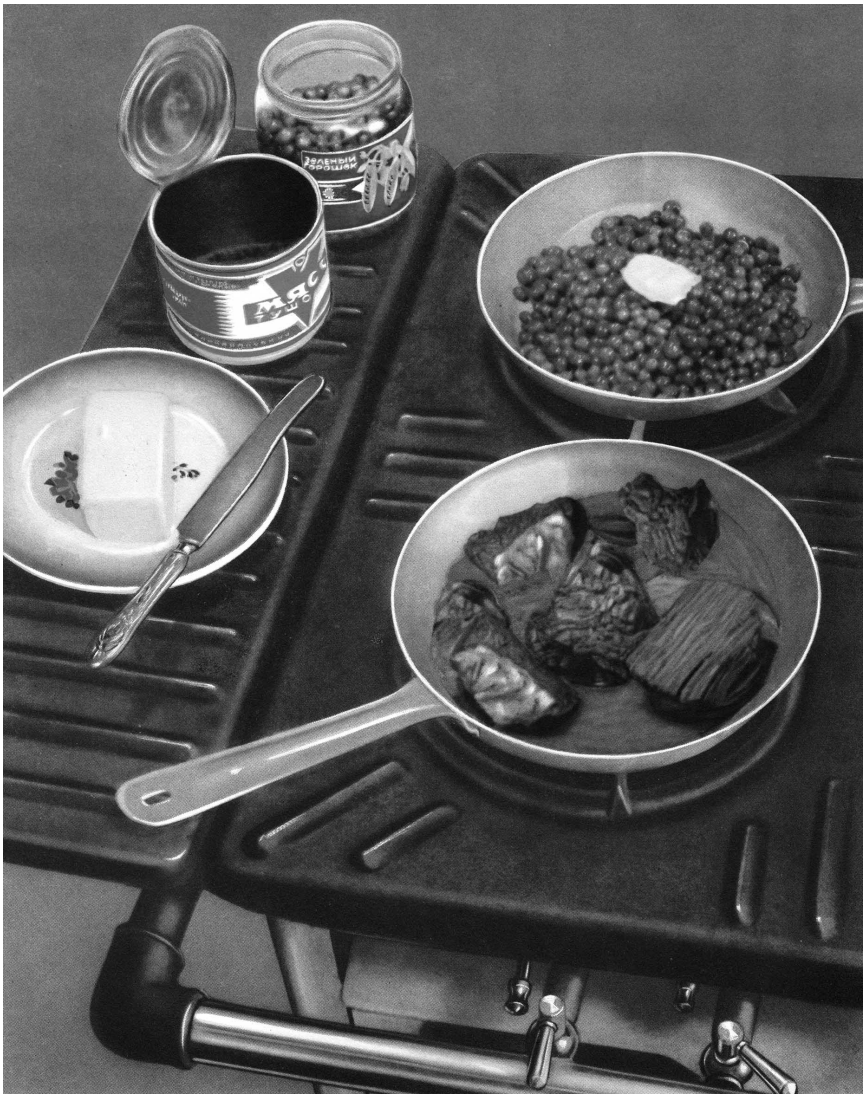
In a recent conversation with Zurich-based journalist David Signer (no relation), Roman Signer argues that "actually, nature is our enemy. During a thunderstorm you can see what kind of horrible weapons nature has in stock… [it] works constantly on our extinction. Although nature provides everything for us, it is not friends with humans. It has created traps – for example, deceptively hard surfaces on a volcano, under which lava lurks, just waiting for us to fall in." (See here also Volcanoes and Earthquakes: Hotspots of the Mediterranean). Nevertheless, he adds, he loves to go out for weekend walks and watch cows and birds through his binoculars.



Microscopic Marvels of Art and Industry: Thin Slices

From palaeontologist Melchior Neumayr's *Erdgeschichte* (History of the Earth) of 1887. Six pictures of microscope slides: the originals measure approximately a tenth of the A2-size prints on show, and are hand-painted. So these pictures were partly made by the "unknown artists" Susan Hiller commemorated in her project *Dedicated to the Unknown Artists* (1972-ongoing): the hand colourists, almost certainly female, who tinted picture postcards of "rough seas" battering British coastal towns. For more work by the Unknown Artists, see also Butterflies: the Butterflies' Friend, later in this pamphlet.)

The Thin Slices (*Dunnschliffen*) have a kind of talismanic significance in the Library of Marvels project, since “thin slicing” in the psychological sense of making rapid intuitive judgments has been so important in developing it. “Fishing” in Signer’s library, faced with so many books (almost all in foreign languages) and so many possibilities, my search process became largely instinctive rather than scholarly. Scan the spines on a particular shelf, make a snap decision, stick out an arm, grab a book, open and look, and Neumayr’s Thin Slices will TKTKT.

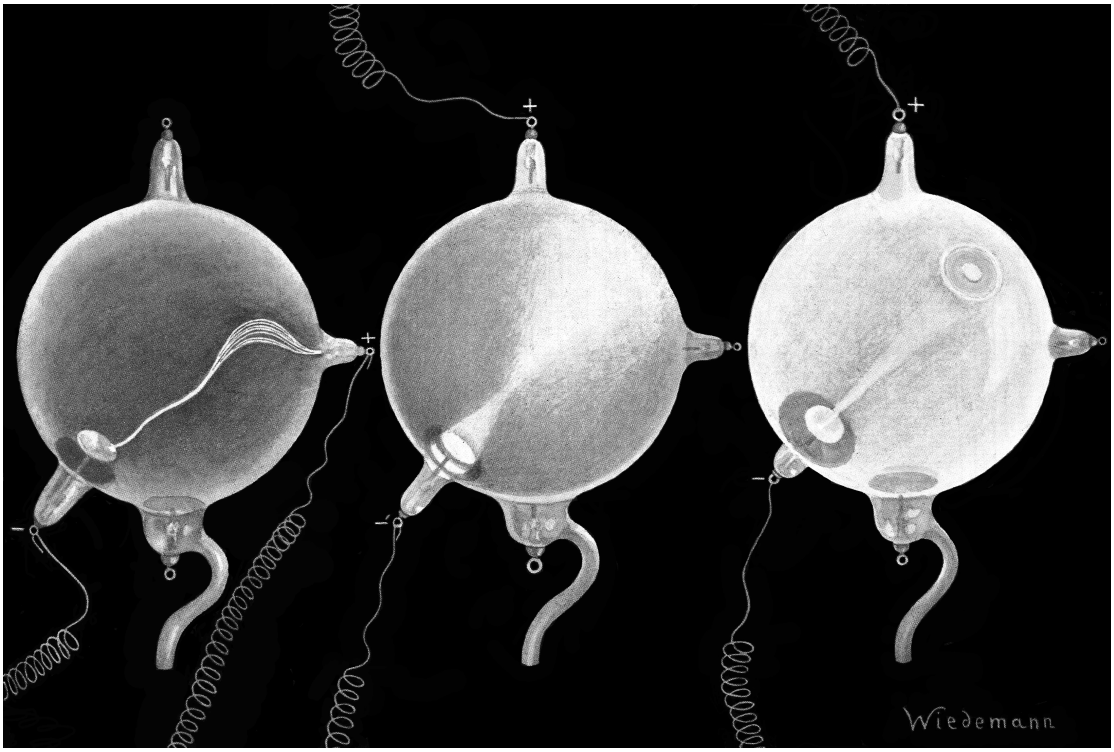


Civic Courage: Stalin's Cookbook

Back in 2014, Signer showed me this book with some excitement and hilarity: a cookbook commissioned in 1936 by Joseph Stalin from the Commissar for Food Industry, Anastas Mikoyan. Its intention was to showcase the luxurious cuisine of the Soviet Union and get one over on the French. Titled "The Book of Delicious and Healthy Food", it appeared in print in 1939.

Writer Elena Sorokina discusses this book in entertaining and scholarly detail in a 2011 Cabinet article (Summer issue 42). She underlines the scientific Marxist ideology informing the book's approach: "Simply put, food was part of the production process and had to be approached as such, rationally and pragmatically. The new bible of Soviet cuisine was thus overtly didactic, scientific, and educational: long passages on women's liberation from kitchen slavery and a thorough analysis of vitamins, minerals, and calories preceded the book's two thousand recipes. Strong political guidance was equally important: each chapter opened with a quote from Stalin, Molotov, or Mikoyan, praising the achievements of socialist industrialization, defining new far-reaching goals for meat and fish production, or reflecting on the importance of good packaging for vegetables. Recipes for soups, steaks, and omelets followed."

Ideology aside, the dozens of fabulous coloured illustrations in the book are pungently of their time and place: a visual feast, and a deeply ironic one. One suspects very few Soviet citizens sat down to meals like these.



Electrical Marvels: Chemistry of the Intangible

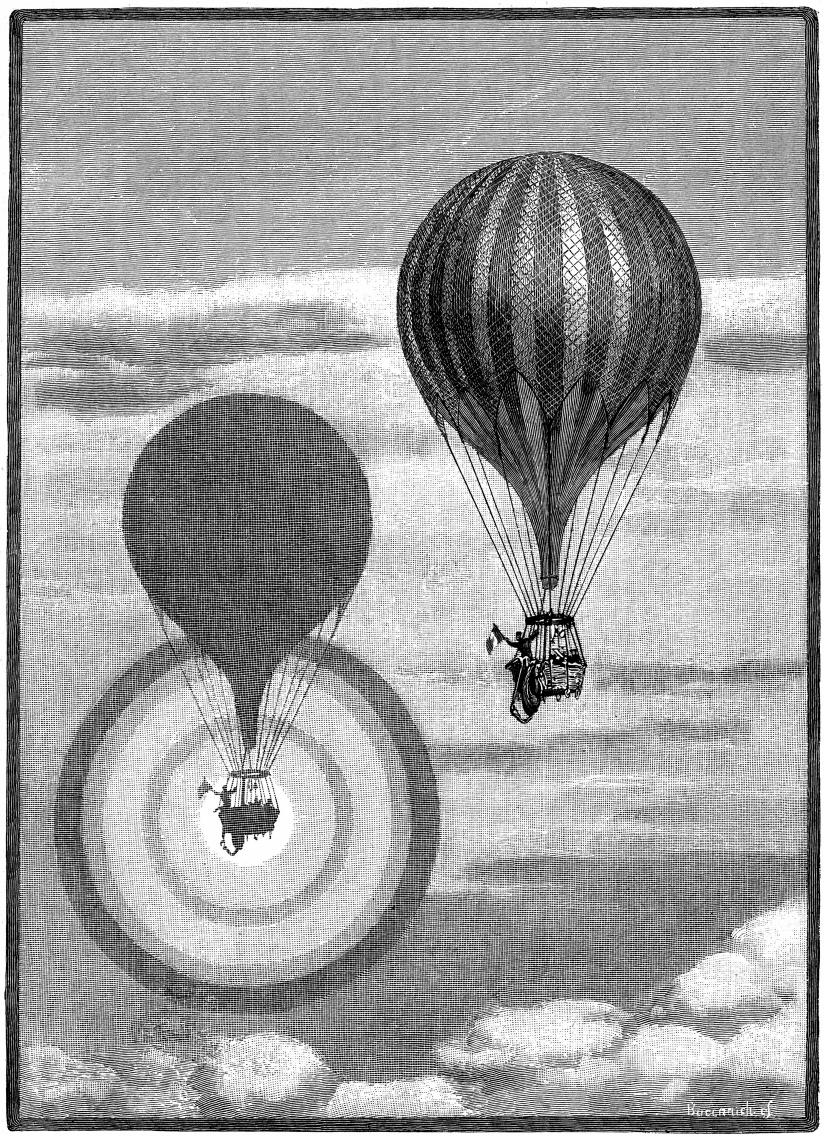
Glowing, multicoloured Geissler tubes illustrate Paul Köthner's 1906 popular science book on the strangely-named "chemistry of the intangible". Invented in 1857, Geissler tubes were the precursors to contemporary neon display lighting.

Marvels of Sculpture: Exploding Statues

The life of Polish-Lithuanian general Kazimierz Siemienowicz (c. 1600-1651) is apparently somewhat mysterious, but his 1650 treatise *Artis Magnae Artilleriae (The Great Art of Artillery)* served as an important military manual for over two hundred years and was translated into five other languages – English, Dutch, German, French and Polish. Among other innovations it discussed the use of rockets with delta-wing stabilisers, and in 2000 a Lithuanian 50 litas coin depicting his very modern-looking delta-

wing design was minted in commemoration of the book's 350th anniversary. Siemienowicz's commitment to placing his innovations in the public domain may have done him no good, though: it's rumoured that he was assassinated by members of the pyrotechnic and gunmakers' guilt as a punishment for his exposure of their trade secrets.

This display foregrounds the cultural rather than the military side of *Artis Magnae Artilleriae*. It features interior and exterior diagrams of three colossal statues (a Venus, a Bacchus and a ferocious fire-breathing dragon) all designed to go up in smoke. From these we might intuit that the general, along with being a warmonger, was also a bit of a party animal.



Heavenly Marvels

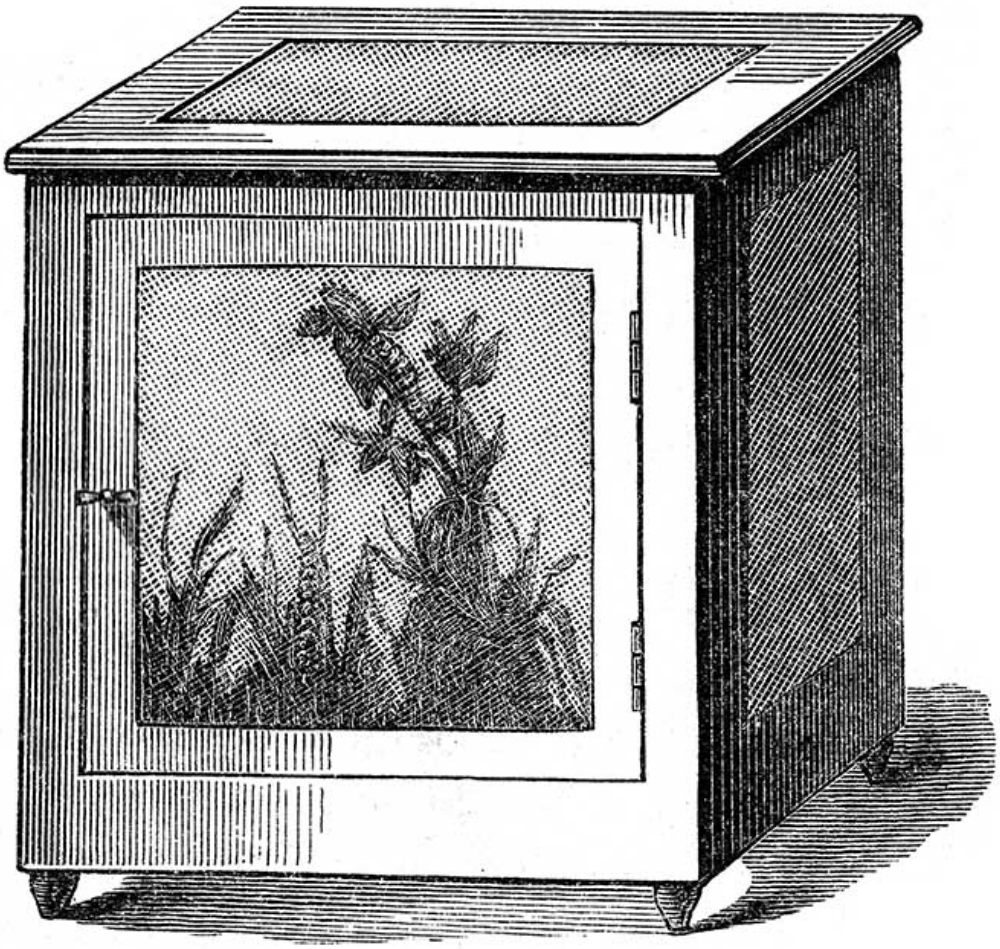
Included here is a picture of a (probably Hawaiian) moonbow or lunar rainbow, taken from science writer Jean Rambosson's 1869 *History of Meteors and Great Natural Phenomena*. Aristotle's *Meterologica* of circa 340 BCE includes the first written discussion of moonbows, rare and fleeting phenomena that occur when a bright full moon rises at a low angle in a dark, rainy night sky. In 1866, Mark Twain visited Hawaii and noted its abundance of both

sun- and moonbows, “barred with bright and beautiful colours, like the children of the sun and the rain”. Twain scoffed at Captain James Cook’s sycophantic name for the Hawaiian islands – the “Sandwich Islands”: Cook should have had the vision to call them “the Rainbow Islands”, Twain objected, because “these charming spectacles are present to you at every turn”. Hawaii’s indigenous inhabitants were doubtless equally unimpressed, and did away with Cook in 1779.

Also illustrated here is a fogbow (paler than a rainbow, and caused by smaller droplets of atmospheric moisture), a Brocken spectre, mirages, a circle of Ulloa and some impressions of the “green ray” phenomenon that Eric Rohmer celebrated in his gentle 1986 film *Le Rayon Vert*. It has recently been asserted (in relation to Tacita Dean’s 2001 video installation *The Green Ray*) that analogue film is a necessity for recording this delicate optical effect, which is caused by the dispersion of light wavelengths as the sun drops below, or rises above, the horizon. Here, an anonymous illustration, initially screened and printed in a book (Alphonse Berget and art director Lucien Rudaux’s *L’Air*, 1927), has subsequently been scanned, photoshopped and digitally reprinted; old-media purists should probably look away.

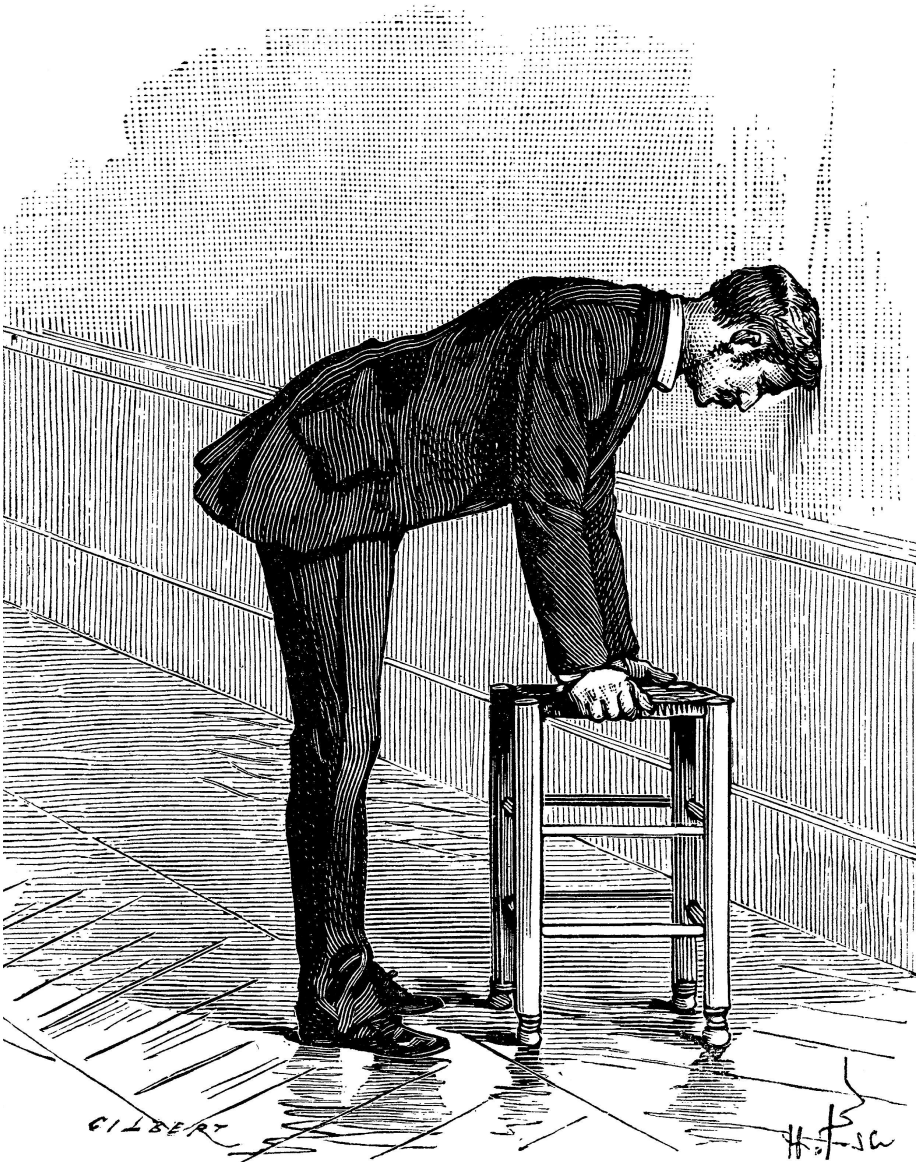
Air Navigation: Parachuting

Swiss flier Ernst Schneider drifts safely down to earth: a picture by an unnamed photographer, from the 1944 *Swiss Glider Pilots' Handbook.*



Butterflies:
Dr. Ernst Hofmann, the Butterflies' Friend

An array of hand-coloured butterflies and grubs from Ernst Hofmann's 1893 book *The Butterflies Friend.*

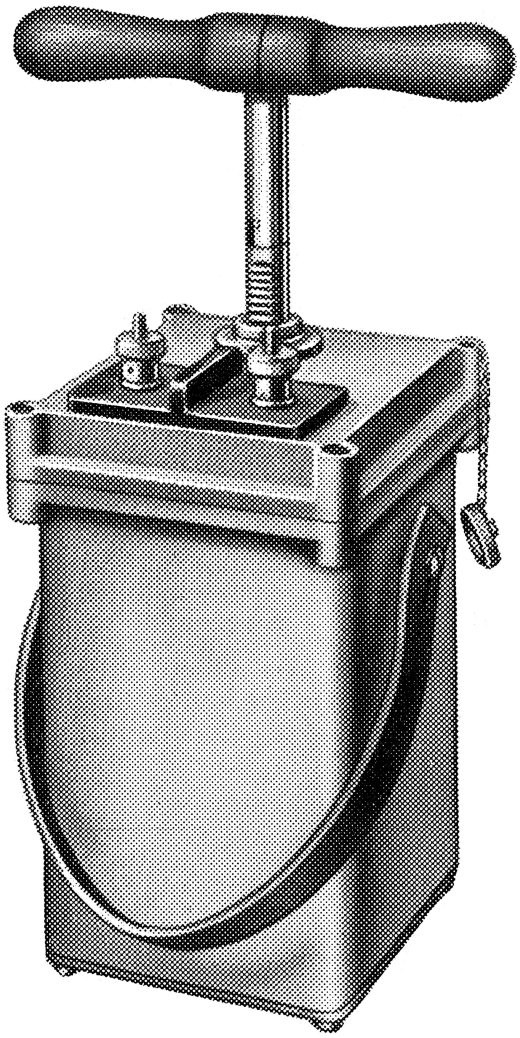


Physical Forces: Columbus's Egg

All the pictures shown here come from the 1890 book *Kolumbus Eier* (*Columbus's Egg*), a collection of parlour-game style entertainments based on physical science. As an expression, a "Columbus egg" appears to be a close relative of the more famous "Gordian knot": a simple economical solution to a complex problem. "One-minute sculptures" *avant-la-lettre*: quite a

few of the book's illustrations strongly recall Austrian artist Erwin Wurm's entertaining early works.

Among these pictures is a surreal-looking scene in which a housekeeper serves a severed head to her startled guest. This is a representation of the "Pepper's Ghost" phenomenon that continues to be used extensively in museum displays and the theatre. The ghostly head is in fact a reflection on a glass screen of an object contained in another room (the "blue room") positioned behind it.



Gunpowder and New Explosive Systems

The bridge demolition diagrams here come from the U.S.A. War Office's 1967 *Department of the Army Field Manual: Explosives and Demolitions* and thus they are (a) in the public domain and (b) coeval with the Vietnam War. However, it's worth remembering that bridges may be dynamited for benign as well as vicious purposes: they may become dangerous and need to be replaced, for example. Roman Signer has recounted how in the mid-1990s he and filmmaker Peter Liechti set out to film the dynamiting of an obsolete bridge using a high-speed camera. With only about three

minutes of footage to spare, timing was crucial – and with a certain inevitability, it went wrong. “By the time the explosion occurred the film was already used up,” Signer recalls. “But what the film actually revealed was beautiful: snowflakes, falling in extreme slow motion. Now that’s what I call failure!”

Signer has become famous for his use of many different types of explosive in his “time sculptures”: gunpowder, detonating cables, blasting caps, “Nonel” shock tube detonator, and more. In the early days, Signer obtained explosives from his uncle, who conveniently happened to be an explosives stockist. The artist didn’t exactly receive a formal training in their use: his uncle showed him how they worked and sent him off with the words “Careful, Roman, careful”. Later, though, Signer acquired the necessary formal qualifications to work with explosives. In Switzerland, he explains, there are three levels of certification: A, B and C, ranging from low-level stuff (blowing up tree stumps, for instance) to master-blasting large buildings. After completing various courses and exams he has achieved the second level. “I’m the B-man”, he declares.

In his 1989 work *Action with a Fuse* Signer spent thirty-five days burning some twenty kilometres of fuse alongside the railway track that leads from his birthplace in Appenzell to his adult home town of St Gallen, in Switzerland. In this action, the technical issue of connecting hundred-metre lengths of fuse, and keeping the spark going, became quite crucial. This display includes various diagrams showing how fuses may be linked together and sparks transferred.