The Phantasmagoria

All those large dreams by which men long live well
Are magic-lanterned on the smoke of hell;
This then is real, I have implied
A painted, small, transparent slide.
—William Empson

In Paris soon after the Revolution, the showman and inventor Etienne-Gaspard Robertson staged a *son-et-lumière* Gothic moving picture show, under the name of "Fantasmagorie"; coined from Greek, *phantasmagoria* means an "assembly of phantasms." Robertson used a projector, the Fantascope, dispensed with the conventional theater’s raised stage, the puppet show box, and the proscenium arch, and concentrated his lighting sources and effects in the projector itself by placing it behind a large flat screen, like a theatrical scrim. He also mounted his newfangled magic lantern on rollers, so that when, concealed behind the screen, he pulled back from the audience, the image swelled and appeared to plunge forward into their ranks. With a true impresario’s flair for catching the mood of the public, Robertson deliberately excited screams and squeals. He—and his contemporary rivals and imitators—set the scene for the coming of the
horror video, its ghouls, ghosts, and vampire-infested suburbs.\(^1\)

The phantasmagoria derived directly from \textit{camera obscura} and magic lantern shows, and many displays had been staged before Robertson’s struck a chord with the public, but Robertson’s Gothic horror spectacular, with its many brilliant twists and devices, turned any spectator from a cool observer into a willing, excitable victim. Whereas the panorama concentrated on battles, modern cityscapes, or exotic scenery, customs, and people—it is the forerunner of the widescreen epic film—the phantasmagoria shadows forth great silent classics such as F. W. Murnau’s vampire movie \textit{Nosferatu} (1919) or Robert Wiene’s \textit{The Cabinet of Dr. Caligari} (1919/1920). The uncanny took a turn away from external, supernatural, and mysterious causes of fear and trembling, earthed to a common religious faith, and began to inhabit instead unstable, internal hallucinations, seething with personal, idiosyncratic monsters extruded from the overheated brain by the force of vehement imagination, or, as Goya would famously write on the opening \textit{Capricho}, with monsters generated by “the dream of reason.”\(^2\)

Even supposedly natural wonders, rather than infernal hallucinations, take on a fantastic appearance: icebergs, crags, volcanoes, geysers, and alpine ranges fill the cabinets of the traveling showmen.\(^3\) The linguistic and visual imagery that the new model applied was, however, very ancient: phantamagorists were populating their entertainments with the plots and cast of characters of past beliefs, and conjugating a series of symbolic equivalences between imagination and shadowplay, mystery and darkness, suggestiveness and fear, and evanescence and smoke that have their origins in Neoplatonism and its play with the metaphor of shadows.

The intrinsic subject matter of phantasmagoria was spectral illusion—morbid, frequently macabre, supernatural, fit to inspire terror and dread, those qualities of the sublime. It foreshadows the function of cinema as stimulant, and prepared the ground for the medium’s entanglement with hauntings, possession, and spirit visions. Above all, phantasmagorias gave an impression of vitality far more beguiling than even the miniaturized intricacies of panoramas and peepshows. Magic lantern slides, pricked transparencies, and other illusions flickered and fluttered in the candlelight, and conveyed a feeling of time passing—the daylight castle changed into a haunted ruin by the snuffing of a lamp—but the images projected by phantasmagorias grew and shrank, as well as shifting with tricks of the light, and so created an illusion that they possessed the quality of conscious life: animation.\(^4\)
Robertson was born in 1763 in Liège, Belgium, and became a keen balloonist as well as pioneering impresario. He refined many features of the popular magic lantern show when he used an Argand oil lamp for the first time; being so much brighter than candles, it allowed him to put on public shows to a crowded hall. In this way, he brought the shared passion of religious festivals to mass entertainment and demonstrated the huge power of such spectacles and illusions over crowds. As well as moving the projector, he experimented with arrangements of lenses, and the play of shadows and the superimposition of one picture upon another to create certain special effects: ghosts rolling their eyes, the flickering flames of hell, a ghostly dance of witches. He introduced Benjamin Franklin’s glass harmonica to create appropriately eerie and fairyland accompaniment, as well as a Chinese gong which he struck at climactic moments. The apparition of a horrifying Medusa head, for example (a painted slide survives), wittily reproduced the petrifying effect of his spectacle on his audience. Robertson also realized that if the images were painted on black backgrounds, they would appear to float free in space. His screens were thin gauzes, saturated in wax, so that his phantoms were further dematerialized by the diaphanousness and translucency of the material on which they appeared. He was a skilful and sensitive painter as well, but he also employed artists who could interpret his ideas. Sometimes he projected onto smoke.

In his engaging memoirs, Robertson described his early attempts to conjure devils for real. After these failed, he wrote: "I finally adopted a very wise
policy: since the devil refused to communicate to me the science of creating prodigies, I would apply myself to creating devils, and I would have only to wave my wand to force all the infernal cortège to be seen in the light. My habitation became a true Pandemonium.”5 In 1799, for his most successful séances, Robertson rented an abandoned Gothic convent—the Couvent des Capucines—dressed it in antique bric-à-brac and black drapes, painted it with hieroglyphs which, he wrote, seemed “to announce the entrance to the mysteries of Isis,” lit it weakly with “a sepulchral lamp,” and maintained before the spectacle began “an absolute silence.” The show began with a speech: “Citizens and gentlemen,” he declared, “It is ... a useful spectacle for a man to discover the bizarre effects of the imagination when it combines force and disorder; I wish to speak of the terror which shadows, symbols, spells, the occult works of magic inspire.” He then ended with a flourish: “I have promised that I will raise the dead and I will raise them.”6

The recent Terror furnished him with the inspiration for some deadly special effects: the severed head of Danton, adapted from his death mask, eerily materialized in fumes rising from his casket, and then gradually faded away, changing into a skull as it did so. The show was even closed down by the police for a spell because the fear spread that Robertson could bring Louis XVI back to life.7

Teeming with devils, ghosts, witches, succubi, skeletons, mad women in white, stigmatic nuns, and what he termed “ambulant phantoms,” Robertson’s repertoire offers a vivid census of the population deemed native to the imagination. His sources reached back into pagan and heterodox mythologies of metamorphosis and metempsychosis as well as contemporary sublime Gothic motifs. He showed the shades of the dead in the Underworld where Proserpina and Pluto presided as judges, and he conjured Orpheus losing Eurydice, Venus seducing a hermit, and the story of Cupid. Christianity also supplied him with subject matter of the forbidden and the transgressive: the temptation of St. Anthony by alluring hoydens, witches preparing for the Sabbath and flying off on broomsticks while the moon turned the color of blood. One slide even depicted “Mahomet,” inscribed with the surprising words, “Pleasure is my Law.”

The “Bleeding Nun,” Death with his scythe, the “Red Woman,” as well as various recent agents and victims of the Terror—Robertson’s characters rushed at the spectators from the screen as if to grab them; Banquo’s ghost and the three witches were summoned, among figures from contemporary artists like Henry Fuseli and William Blake who had illustrated Shakespeare. “The Dream or The Nightmare: A Young Woman Dreams of Fantastic Pictures”—a tableau that owes a clear debt to Fuseli’s famous painting, much disseminated in a variety of prints—was provided by Robertson with a happy ending: the demon of jealousy first crushed her breast with an anvil, held a dagger over her heart, while, above, a hand of fate cut a cord with a pair of scissors. “But Love then arrives and cures the wounds with rose leaves.”8
The sketches Horner made from the top of St. Paul’s Cathedral formed the basis for a panorama that was later painted on the curved internal walls of the Colosseum, an enormous building Horner commissioned to be built in Regent’s Park specifically for that purpose. At the center of the building stood a tower atop which was a replica of the dome of St. Paul’s, replete with a model of Horner’s crow’s nest. The panoramic view offered from the tower’s public observation platforms, one of which is visible in this aquatint from 1829, was, of course, London as seen from St. Paul’s cathedral; the two trompe l’oeil white towers are architectural elements from the cathedral itself. To complete the illusion, the Colosseum—the very building the viewer was in—was painted into the panorama. As a result of financial difficulties, the panorama opened before being fully finished; this explains why the scaffolding used by the painters is still visible in the foreground.

The dramatic effect on the public of such spectacles anticipates very closely the excitement—and panic—that greeted the first screenings of films proper, as in the famous case of the Lumièrè Brothers’ advancing train. Robertson’s spectacular assaults on his suggestible audience can be gauged from contemporaneous engravings: the phantoms towered larger and closer as the projector rolled back, manifested themselves wreathed in smoke and floating on clouds or, even, as in the case of Death, appeared to lunge headfirst, scythe at the ready, into the throng.
The phantasmagoria spread through Europe with traveling entertainers, many of whom were Italian. But when it adapted conventional imagery of spirits, it did so with a difference, turning such scenes—and attendant beliefs—into secular entertainment.

One Londoner gave a lively account of "The Red Woman of Berlin," who was summoned at the climax of the show put on by Robertson’s rival, Paul de Philipsthal, also known as Philidor, in 1825:

*The effect was electrical, and scarcely not to be imagined from the effect of a written description. I was myself one of an audience during the first week of its exhibition, when the hysterical scream of a few ladies in the first seats of the pit induced a cry of "lights" from their immediate friends, which it not being possible instantly to comply with, increased into an universal panic, in which the male portion of the audience, who were ludicrously the most vociferous, were actually commencing a scrambling rush to reach the doors of the exit, when the operator, either not understanding the meaning of the cry, or mistaking the temper and feeling of an English audience, at this unlucky crisis once more dashed forward the Red Woman. The confusion was instantly at a height which was alarming to the stoutest; the indiscriminate rush to the doors was prevented only by the deplorable state of most of the ladies; the stage was scaled by an adventurous few, the Red Woman’s sanctuary violated, the unlucky operator’s cavern of death profaned, and some of his machinery overturned, before light restored order and something like an harmonious understanding with the cause of alarm.*

Robertson, Philidor, and other lanternists toured during a period of brilliant innovation, when the latest scientific discoveries fuelled the business of amusing a public which was growing increasingly affluent and pleasure-loving. In an era of expanding urban pleasures, when waxworks also transferred from the religious to the secular realm and the diorama opened

in Paris, the panorama was invented in Edinburgh by the Irish painter Robert Barker in 1785, giving a 360-degree command of the field of vision. Barker’s view of the city was the first example of this particular optical enterprise, and it inspired feats of heroic illusionism. In 1821, for example, the Hull-born artist Thomas Hornor climbed to the apex of the cross on the pinnacle that crowns the dome of St. Paul’s Cathedral, London. There, he built himself a crow’s nest, a fantastic platform of lashed timbers with a cabin secured to it by overhead ropes, themselves tied to a teepee-like superstructure, and from this, where he roosted during the time it took, he assembled, from sketches mounted on a rotating frame, an image of the city in 360 degrees. He used a telescope to examine details of the cityscape and calculated the perspective not only to unfold the vista in panorama but also to position the viewer convincingly in the scene.

This feat brings up the distinction between the sight and its image, for by this prodigious feat of daring, engineering, and survival, Hornor did indeed command a stable view of London unobtainable from the first Montgolfier balloons or, later, airplane. The crow’s-nest, the telescope, and the geometry all enhanced the field of vision that lay around him. But the picture he made turned his experience into a rich illusion for the audience who later flocked to this truly popular, classless wonder of late eighteenth–and nineteenth-century ingenuity. Artist-showmen, like Robertson and Hornor, were moving
on all fronts to expand the knowledge and scope of human faculties. With waxworks, they took spectators into anatomical theaters, to banquets in palaces, and to clandestine deeds of darkness; with models of the world, such as Hornor’s Panorama or Wyld’s Monster Globe, a relief map installed in a special rotunda in Leicester Square, they opened up vistas of trade, discovery, and adventure. Inside the Globe, a great staircase led up to viewing platforms—the world was mapped on the inner walls of the sphere, turned inside out to fit the convexity of the building. The spectacle drew vast crowds from 1851 until it was demolished in 1862.

Frontispiece from Robertson’s Mémoires récréatifs depicting a phantasmagoria lantern projection.

These early enterprises of optical researchers and instrument makers and their users aimed at enhancing visual experience of the world as it offers itself to human eyes. But as with Athanasius Kircher’s magic slide shows, such spectacular entertainments often played into a further enterprise—expressing fantasy and communicating inward vision—wittingly or unwittingly. Haunted modernity was made by optics: Robertson’s key predecessor is the artist-designer Philippe-Jacques de Loutherbourg (1740–1812), the French-born Romantic painter who worked in England and brought a Turneresque dedication to shipwrecks, waterspouts, and other storm-tossed scenes. He was a vigorous impresario of spectacular theater over a very long London career and a pioneer of animation techniques, a veritable model of Hoffman’s figure of Dr. Coppelius, the automatist.

In extravaganzas staged at Drury Lane, Loutherbourg plunged the audience into darkness for the first time, to intensify the impact of his spectacular magic shows, such as A Christmas Tale (1772) and, later, the patriotic pageant, Omai. He projected painted lantern slides in his productions and invented the “Eidophusicon,” which drew delighted crowds to see “Various Imitations of Natural Phenomena, represented by Moving Pictures.” A stage set was furnished with banks of rollers turned by many hands, and numerous light sources, prickings, and cut-outs raked the scene with shadows and dappled it with moiré effects and dancing firelight to show London bursting into flames in a tableau of The Great Fire, and to conjure Milton’s “darkness visible,” with Satan and his minions “on the Banks of the Fiery Lake” in the pit of hell. At the end of his life, Loutherbourg acquired an extremely wealthy patron, the young poetethe William Beckford, and was
an extremely wealthy patron, the young aesthete William Beckford, and was commissioned by him to stage his notorious Christmas revels at Fonthill in 1782. Beckford later recalled "that strange, necromantic light which Loutherbourg had thrown over what absolutely appeared a realm of Fairy, or rather, perhaps, a Demon Temple deep beneath the earth set apart for tremendous mysteries. ... The glorious haze investing every object, the mystic look, the vastness, the intricacy of the vaulted labyrinth occasioned so bewildering an effect that it became impossible for anyone to define at the moment, where he stood, where he had been, or to whether he was wandering." 14

The appetite for enchantments led far more sober characters than Beckford to create fantastic devices: the Scottish scientist David Brewster, friend of Walter Scott, invented the kaleidoscope (1819), which he named after the Greek for beautiful. He also analyzed binocularity, establishing its importance to human perception of depth, and accordingly applied it to another ingenious design—the stereopticon. It too became a hugely popular toy of the Victorian middle class, and helped popularize photography in the home.

Brewster was curious about legends of fairies, wonders, and superstitions and collected examples in an anthropological spirit, publishing in 1832 an important series of public letters to Scott, engaging that great exponent of ballads and fairytale in a rational discussion of the supernatural. In these, Brewster sets out, among other things, the double mirror trick later dubbed "Dr. Pepper's Ghost": by angling panes of glass under and above the stage, a specter can be beamed to hover in the air as large as life. Brewster also attended phantasmagorias and gave highly detailed descriptions of the moving eyes and lips of the specters, of the dissolves, fades, and other proto-cinematic effects; eyes rolling in an effigy’s head gave the eerie impression that the head was following the viewer’s gaze. 15

Lewis Carroll, who was an indefatigable theater-goer with a special taste for pantomime and spectacle, also dabbled in inventions and was later inspired by these optical illusions to stage in the Alice books the transformation of a baby into a pig and the apparition of the Cheshire Cat. Alice protests:

"... I wish you wouldn’t keep appearing and vanishing so suddenly: you make me feel quite giddy!"

"All right," said the Cat; and this time it vanished quite slowly, beginning with the end of the tail, and ending with the grin, which remained some time after the rest of it had gone. 16

With dissolves and fades and metamorphoses of this sort, Carroll the photographer introduced proto-cinematic techniques into storytelling.
The characteristic material of the phantasmagoria thus occupies a transitional zone between the sublime and the gothic, between the solemn and the comic, and between seriously intended fears and sly mockery of such beliefs. Although it bears a sharp flavor of its times, its aftertaste lingers in much of today’s popular entertainment, with its cast of specters and bogeys. Yet Robertson protested that his “illusions were designed as an antidote to superstition and credulity” and claimed that he was staging a rational exhibition in order to expose the mechanism behind such specters of the mind. Hence the pseudo-learning displayed in the names of optical devices: Robertson’s imitators and followers among showmen drew heavily on Greek terms to coin high-sounding words—“Eidophasicon,” “Eidothaumata,” “Ergascopia,” and “Phantascopia”—to describe their instruments of uncanny illusion.

The lanternist Philidor also toured to great success all over Europe from 1801 onwards, becoming a friend of Madame Tussaud’s. The Scottish writer James Hogg may have been present at his show in Edinburgh. Hogg’s metaphysical spine-chiller, Private Memoirs and Confessions of a Justified Sinner (1824), one of the master works in the extensive literature of doppelgangers, conjures the hauntings and doublings of his protagonists through optical metaphors that evoke the dark and looming shadowplay of the phantasmagoria. Meanwhile, the vogue for magic lantern shows grew strongly throughout Europe and the United States, where several showmen, including Robertson’s sons as well as former assistants, enjoyed wide popular success from 1803 to around 1825 with their displays of optical illusions, ghosts, giants, and various apparitions. The surviving materials from this early cinema include exquisitely painted Gothic scenes, on two or sometimes three overlapping glass laminae, such that when the moon became overcast, lights came on in a turretéd castle and a phantom would appear on the battlements. The effects of gloom are in fact inkier than a slide projector can achieve and certainly richer in depths than computer imaging.

James Hogg’s demonic alter ego consciously harks back to Marlowe’s Mephistopheles, and the conjurations of specters and delusions in the novel also echo the damned enchantments of that play. Faust was a popular subject for phantasmagoria and magic shows, and when Goethe’s version
subject for phantasmagoria and magic shows, and when Goethe’s version was performed, first in part in 1812, and then, in the first full production, in 1829 at Weimar, the poet expressed special interest in conjuring effects with a magic lantern and proposed that the Earth Spirit should appear in Faust’s study like the dazzling pentagram in Rembrandt’s engraving of the scholar in his study. Goethe made a sketch in which the portent was even more colossal. In 1812, he was frustrated in his plans, writing, “How one might, perhaps with flaming hair and beard, to some extent approach the modern idea of the supernatural, on this we had come to no agreement.”20 But a decade later, Goethe invoked the phantasmagoria as the model to be followed: “That is, in a darkened theater an illuminated head is projected from the rear upon a screen stretched across the background, first as a small image, then gradually increasing in size, so that it seems to be coming closer and closer. This artistic illusion was apparently conjured with a kind of *Lantern Magica.* Could you please find out, as soon as possible, who constructs such an apparatus, how could WE obtain it, and what preparations must be made for it?”21 Goethe made more drawings, suggesting that the devil’s initial appearance in the form of a poodle, and the vision of Helen of Troy, should also be patterned on optical illusions, with two-way mirrors and changing lighting bringing her image suddenly into focus in the glass. For the spectacular staging of *Faust* put on in London in 1824, Mephistopheles carried Faustus through the air by means of a reflection projected into the air along the lines devised by Brewster and adapted by Pepper’s Ghost trick (or so the historian Frederick Burwick has deduced).22

This production of Faust in 1828 took place eleven years before Daguerre announced his fleeting silvered wraiths, but it foreshadows vividly the possibilities that photographic projections would explore: that a fugitive moment could be stilled and the animated motion of living things captured, and both be repeated over and over.

The magic lantern mimicked the operations of the mind in another crucial way, besides its original affinity with interior phantasms: it attempted to represent movement. Significantly, it did not begin by showing moving objects as beheld in the world but gorgeous kaleidoscopic geometries, achieved by ingenious slides and double or “biunial” lenses. Slides with turning handles and “rack and pinion” gearing entered the entertainer’s repertory. These proto-cinematic devices were given more imposing names: the Cycloidotrope projected whirling patterns etched onto layers of smoked glass; the Choreutoscope produced the illusion of the earlier flip books and could make dead men dance or a ghost rise from the grave—or a girl take off her clothes.23

The showmen operating the lantern were magicians, and they circulated through the same entertainment channels as conjurors and circus artistes; many of them came from that background, and like mediums, either adopted exotic names or were born with them. By the late nineteenth century, the lantern illuminated dreams and fantasies, not only supernatural, ghastly and spectral, but naughty fulfillments of desire. The earliest “trick” films borrow seaside pier scripts, including “What the butler saw” jokes and keyhole glimpses of girls undressing. For the ebullient series of optical illusions in his pioneering films of the 1890s, Georges Méliès conjured fairies, goblins, and demons: flew to the moon; inflated his own...
conjured fairies, genii, and demons; flew to the moon; infants his own
head and blew it up; capered about the guise of the Devil; and set a
lighted fuse to himself and so exploded on camera in full motion to the
hilarity of all who were watching.

Special effects—from magically seeing through clothes to flying through the
air—would become abiding passions in the cinema. But even more critically,
the magic lantern shows revealed a link between the medium, images of
desire, and the power of the artist who makes these fantasies visible.

Robertson and his peers were exploring shadow-play to delight audiences
with thrills and terrors. But the feelings shadow-play could prompt were also
melancholy and reflective, and it happened that, at the same time as
showmen were expanding their ingenuity in devising new illusions, artists
were turning to shadow as a prime vehicle of ideas for absence, loss, and
memory.

Engraving by Dutch painter Samuel von Hoogstraten for his 1675 publication,
*Inleyding tot de Hooge Schoole der Schilderkonst*. The scene shows apprentice
painters in a studio carrying out experiments with light and shadow.

**The Origin of Painting; or, The Corinthian Maid**

Shadow is the stuff that art is made on, according to one legend about the
origin of painting. The first portrait was created when “the Corinthian maid,”
called Dibutades, saw the shadow of her young man’s profile cast on the wall
by a lamp; she then traced it because he was going away on a journey and
she wanted it for a memento during his absence. Her father, a potter,
finding her drawing later, “pressed clay on this and made a relief, which he
hardened by exposure to fire with the rest of his pottery.”

The story was transmitted in manuals of painting that harked back to the
antique, including Pliny the Elder’s widely enjoyed *Natural History*, but
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illegends are round beyond classical culture and earlier. It is however many study that for a while—mainly in the seventeenth and eighteenth centuries—captivated western artists’ imagination, and Dibutades’ act of loving representation inspired several works known as “The Origin of Painting”: the French painter Joseph Suvée and the Scotsman David Allan both explored the potential for high drama in the single light source and the looming shadows thrown against the wall. In England, Joseph Wright of Derby further developed the romantic mood of the fantasy when he imagined the lover sleeping while his likeness was taken. This aspect of the tale suited the era’s taste for sentimentalité, and Dibutades inspired poems and songs in which she represents a faithful and true maiden who wished to recollect her beloved in tranquility during his absence.

An odd thing among many about this legend is that of course it does not describe painting at all—the Corinthian Maid never touches pigment or brush, and a silhouette of its essence does not describe anything but outline. (Some artists noticed this inconsistency, and amended their titles to “The Origin of Drawing.”) As for Dibutades’ father, it could be said he invented bas-relief: Wright of Derby’s picture was commissioned by Josiah Wedgwood, another potter, and the great producer of fired classical cameos, who consequently had strong reason to identify with the story. Cameo profiles are closely related to silhouettes: both play with inverted light and shade, relief and contour, and explore the inherent recognizability of an outline. The onlooker supplies features from memory, so that the act of looking and filling in the shadow activates his or her memories. The mind engages strongly with the “unfinished thing”: the aesthetic principle of non finito. Lord Kames in Elements of Criticism (1762) analyzed three stages in this process: the first takes place in front of the object, the second when it is later called to mind (“recollected”), and the third when memory and imagination act in synthesis to inspire reflection, which he considered more psychologically potent. When John Ruskin returned to the theme, he emphasized how the power of imagination enhances aesthetic response through association. Interestingly, Ruskin called the faculty at work in this mental act of visualizing, “Second Sight.”

The white marble bust and the black silhouette, in their aesthetic austerity, present a counterweight to the information overload of the polychrome and bedizened waxwork, yet the legend of Dibutades reveals the genealogy linking the death mask to the photograph: both copy directly from the real thing. For above all, the heroine of Pliny’s story clearly came near to wielding “the pencil of nature,” as Fox Talbot called light in his famous account of the invention of photography in 1844.

Life and death masks, waxworks, and other contact relics had continued in the eighteenth century the traditional struggle to represent the distinctiveness of a person: a “life-like,” outer physical presence rendered in profuse and realistic detail seemed to promise entry to the subject’s essence, their inner spirit. Photography does not inaugurate this trust in a person’s countenance as the seat of the individual, or this identification of image and person, but it did—and does—offer a ready new technology to continue and deepen the illusion of contact with an absent or dead subject and to summon their presence in the mind of the living.
Exact depiction of outer characteristics opened the way towards capturing individual quiddity. This at least was the highly rational ambition, expressed in scientific physiognomy, realist novels, and living likenesses in portraiture. Techniques such as mapping the idiosyncrasies of the skull as in phrenology, and forensic approaches such as finger-printing, taking copious measurements, and systematic analysis of criminal features developed in the course of the nineteenth century alongside photography. Early forms of photography were frequently involved in these now discredited attempts to pin down human variety: the Parisian police chief Alphonse Bertillon (1853–1914) created a special system of measuring features and skeletons and then diagnosed criminal tendencies from this evidence; a similar method was used by C. and F. W. Damman to classify “Various Races of Man” (1875). Photography matched the new hunger for proof of personal distinctiveness, and its nineteenth-century users treated it as a scientific, analytical tool. Its powers of visual portraiture set the pace for literary realism and then surpassed literature’s ambitious naturalism.

The idea of art as the play of light and shade was not itself new when Pliny told the legend of Dibutades. Plato’s use of the image of flickering reflections in the cave is famous, and the Greek word skia graphia, “painting with shadow,” recurs in his writing to express illusion, both visual and intellectual. In the second century, Philostratus, who was interested in the power of magic, challenged Plato’s negative view, writing that even when an image is made only of skia (shadow) and phos (light) and has no color or substance, it can still convey likeness and possess form, intelligence, and—interestingly—modesty and bravery. He went on to make the startlingly modern comment that “the mimetic faculty” is needed when looking at pictures and that skia graphia plays upon this power: the beholder fleshes out the image in the light of personal knowledge and fantasy—akin to Ruskin’s “Second Sight.”
This perception illuminates the growing presence of the love motif in Dibutades’ story and the increasingly romantic appeal of the later retellings. The record of a face needs emotional engagement as a stimulus to a perception of accuracy, to resemblance leading to recognition. Some of the earliest ideas about portraiture assume the relationship between the subject and the artist is intimate and loving, even erotic; the fantasy or memory of maker and beholder can later play on the gaps and fill in what is missing—like color. Such accounts of portraits often presuppose that the purpose of making such a likeness of a face, the most individual part of the human form, would be personal.

In at least one of the depictions inspired by Pliny, Dibutades’ lover reaches out towards her, while she turns to his reflection on the wall. The very absences and inadequacies of the “skiaogram” create psychological space, where the experience of the image grows so intense as to surpass its subject. Dibutades was not the first person to discover that the living likeness of her beloved, however flat and monochrome a silhouette may be, spoke with surprising vividness to her feelings.

Domestically, making silhouettes caught on in the nineteenth century as a parlor game in society both in Europe and America and played the part that photography would later fill. A shadow, preserved on paper, acted as an epitome of the subject’s character. For all their schematic stillness, silhouettes can present the liveliest studies of family groups and friends. For example, the Schattenreise in the Beethoven House in Bonn truly capture the Beethoven family’s gatherings, their pastimes, gestures, and demeanor, and entice the viewer into filling in the gaps.\textsuperscript{33} The blackness, emptiness, and simplicity demand work, but, as if by a miracle, the shadow figures appear to possess clear features: the shade summons the person. It is striking that this kind of informal, intimate, often affectionately comic portraiture, depicting children playing, young people at their music, older women sewing and reading, men at cards or other tasks, were made and framed in upper bourgeois and aristocratic households where busts also provided favorite interior décor and souvenirs. Indeed, silhouette profiles are often displayed as if they were cameos carved in relief in marble.

Drawing silhouettes also became a popular pastime as an amateur means of diagnosing character. Like phrenology and palmistry, and even short-lived fads for metoposcopy (reading the lines on the forehead), it offered a key to the inner man or woman through their outer features. In 1820, the influential physiognomist Johann Kaspar Lavater reproduced Dibutades’s experiment in a rational rather than tender spirit.\textsuperscript{34} He placed himself on the other side of the screen from the light source and analyzed his subjects’ characters from the silhouette: in one case, he decided his sitter was “full of great goodness, with much fineness of character.” He admitted that the silhouette did not reveal the gaiety of the original, as the nose dominated more, but it did convey more of her finesse.

In both domestic settings and public auditoria, these pre-photographic forms of portraiture played a part in building a new sense of equal distinctiveness and individuality for everybody. The urban working people who gathered in London’s Egyptian Hall and other venues across the United States and Europe had their profiles drawn, their bumps felt, and their palms read, and
they developed through these means heightened psychological self-
awareness mediated through their physical differences. And this modern
sense of self, as an external being of unique traits operating in the world,
grew in pace with the emancipation movements of the century.

A trick lithograph based on Henry Fuseli’s *The Nightmare* (1781). The creature
appears only when the lithograph is lit from behind. Paris, ca. 1830.

“Photographic looking” existed before the appearance of the camera, as
several critics have pointed out, and the new medium responded to desires
which were articulated in other ways: to order, analyze, and store data; to
measure and inventory phenomena; to make memorials of the past. (It is
interesting, I think, that the story of Dibutades, as a topos of art, fades in
popularity after the 1840s, just as appearances began to be created and
fixed by the new instrument of light, the camera.) At the same time, it
responded to and amplified a growing realization that human vision was
limited, discriminating, and linked to the vagaries of memory, and that a
machine might be able to see more, and more clearly.

Early photography’s muted color palette helped stir associations with
intimacy, even eroticism; its use for sentimental record was enhanced by its
modest tonal range. Nineteenth-century processes made possible a subtle
chronicle of light and shade: a scrupulous registry of subtle gradations
enhanced the lifelikeness of its subjects and could animate the inanimate,
often to an uncanny degree. The rich variety of different methods of printing
deepened the colors in the palette, with whites, grays, silver, saffron, russet,
maroon, indigo, and smoky blacks. (The best books about the early decades
use color reproduction.) Despite these nuances, the absence of natural color
in these photographs evoked the absence of the subject who had been there
in full color before one’s eyes when the image was made. (After the general
spread of color photographs, the nostalgic potency of black-and-white
imagery became even sharper. Indeed monochrome became deeply
identified with acts of memory; Steven Spielberg, for instance, used it for the
“documentary” scenes about the ghetto in *Schindler’s List.*)
Furthermore, daguerreotype images, imprinted onto highly polished silver-coated copper sheets, require tilting this way and that to bring the image in the surface into view, so the person in the image troublingly appears to hover and fade. This spectral effect, intrinsic to the medium, provoked frissons from its first appearance, so much so that many early examples are hand-tinted to give bloom to the sitter’s cheeks and lips, or gilded to enliven a cushion, a fob, a pair of earrings.

Daguerre had first invented the diorama in Paris in 1822; his later move to invent the daguerreotype follows the logic of the contemporary quest to capture particularity with scientific realism. In some of the earliest photographic images ever made, Daguerre himself, his associates, and followers chose to picture bas-reliefs and busts and other casts. They were exhibiting the fine-grained vision of the new process, its heightened powers of scrutiny (the buttons on the uniform of the microscopic guard standing to attention outside the Louvre in one image), its quivering alert sensitivity to different textural gleam and luster (on marble, on plaster, on gilt and on ormolu, on plants’ foliage, on damask upholstery in an interior study). But the later medium also possessed, subliminally, a kinship with “peelings off life,” as the novelist Honoré de Balzac expressed it after having his portrait taken by the new process. He confided in 1841 to the photographer Félix Nadar that he felt that “each body in nature consists of a series of ghosts, in an infinity of superimposed layers, foliated in infinitesimal films, in all the directions in which optics perceive this body.” Balzac felt in consequence that every daguerreotype “was ... going to surprise, detach, and retain one of the layers of the body on which it focused. ... From then onwards, and every time the operation was repeated, the subject in question evidently suffered the loss of one of its ghosts, that is to say, the very essence of which it was composed.” The new medium possessed the accuracy of lost wax casting, combined with the illusory shadowy worlds of silhouette and reflections in mirrors.

Balzac’s fantasy echoes closely a once highly influential theory of vision, “intromission,” which was eloquently evoked by Lucretius and then developed by Roger Bacon in the thirteenth century; according to Lucretius’s model of perception, every object beams out images “like a skin, or film, / Peeled from the body’s surface ... keep[ing] the look, the shape / Of what it held before its wandering ... the way / Cicadas cast their brittle summer jackets.” These eerie, flying sheddings from physical phenomena, called *eidola* in Greek and *simulacra* in Latin, were also known as “radiant species.” Like a photograph made of light, they both retain material substance of their origin but also reproduce it, as with an “idol,” an effigy, or a copy.

This theory of vision survives with an uneven pulse in the history of science, and Balzac may be referring to it directly. But the anecdote captures more immediately the uncanny aura hanging around daguerreotypes from the very beginning and which then began to emanate from photographs too. Images made of light and shadow cast by people, things, and places seem to preserve action at a distance: the transmission of the person through time. The metaphors adopted for the medium—including the word *pellicola*, little skin, for film itself in Italian—present a powerful instance of a figure of speech materializing into substance.
Some early printing processes, such as calotype (1840 to ca. 1855), salted paper prints (1839 to ca. 1855, and 1890s to 1900), and platinum prints (1873 to ca. 1890), soak into the fabric of the paper, giving the image velvety depths. This bonding deepens the impression of presence immanent in the material; for this reason, contemporary artists have revived these processes. By contrast, when the print medium is metal, paper, glass, or other shiny surface—such as created by the later emulsions pasted onto a coated surface—the materials themselves add more play with light and shadow, glistening and reflection (a problem, sometimes, in displaying photographs). This stuff of light and shade dissolves the substance in which the image is caught more convincingly than ever a stretched canvas or fresco wall dematerializes when painted. All these intrinsic properties of the photographic print lent it peculiarly well to rendering the vivid products of the mind’s eye.

Julia Margaret Cameron, making calotype portraits in the 1860s and 1870s, worked purposefully with the emotive range of non finito shadowplay: she plunged her subjects into deep chiaroscuro, or posed them against the light to create a haloed head, or luminously outlined the edge of the profile. Her portrait of Carlyle looked like “a rough block by Michelangelo,” commented Herschel approvingly. Carlyle himself praised the “high relief” of The Mountain Nymph Sweet Liberty. Cameron also deliberately overexposed the prints so that the photographs look like silhouettes in reverse—white on black—as in numerous images posed by her favorite, Mary Hillier, including the famous Call, I Follow, I Follow, Let Me Die, and The Angel at the Tomb. Bowing to the same aesthetic traditions of the preceding century, she also cut out a profile of Julia Jackson—the future mother of Virginia Woolf—to create a kind of cameo.

Shadows can evoke likeness with startling acuteness even when the originals are not known to the viewer or are figures of fantasy. When the brilliant silhouette-maker and puppeteer Lotte Reiniger adapted the German tradition to the new art of the movies and began creating silhouette films, she also relied on the power of the audience’s imagination to supplement the dazzling sleight of hand of her scissor art with depth and color and emotion. Her masterpiece, The Adventures of Prince Achmed (1926), a full-length Arabian Night fantasia entirely composed of cut-out silhouettes, conveys subtle nuance of humor and pathos as well as sharply drawn personalities and settings through illusion of light and shadow executed often in delicate filigree. Prince Achmed has a dreamy mood with touches of melancholy, and some extended sinister passages bristling with demons and monsters, which the basic black of Reiniger’s craft of course matches perfectly. But on the whole the film dances with delight, and does not plunge the viewer into the nocturnal range of early still photography.

The power of such images—the silhouette, and the black-and-white portrait photograph—arises from their origin in the light that once played on their subjects and formed their image. They are emanations, captured and stilled. Is that a figure of speech? They are copies of the originals, and, in that sense, their character ceases to be metaphorical. It is here, on this edge where the figurative touches the actual and the image becomes reality, that shadow eerily communicates individual presence; this effect grows when a
shadow becomes a shade, and that shade a reflection; then the projected image of a person brushes the condition of spirit.

This material has been adapted from Phantasmagoria: Spirit Visions, Metaphors, and Media (Oxford & New York: Oxford University Press, 2007).


3 For example the painted slides Icebergs, ca. 1860, and Aurora Borealis, ca. 1900, made by the London-based firm of Carpenter and Wesley, now in the collection of the Whipple Museum of Science, Cambridge University.

4 Eyes, Lies and Illusions (from the Werner Nekes Collection), exh. cat. (London: Hayward Gallery, 2004); Barbara Maria Stafford, "Revealing/Technologies/Magical Domains," in Barbara Maria Stafford and Frances Terpak, eds., Devices of Wonder: From the World in a Box to Images on the Screen (Los Angeles: Getty Research Institute, 2001).


15 Sir David Brewster, Letters on Natural Magic, Addressed to Sir Walter Scott (London: John Murray, 1832).


17 Robertson, Mémoires récréatifs, op. cit., vol. 1, pp. 276, 291.
41 See Tiffany, Toy Medium, pp. 200–207.
45 Reiniger’s The Adventures of Prince Achmed was wonderfully restored and reissued on DVD by the British Film Institute, with accompanying notes, in 1999.


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