MIRRORS OF CHANCE

Photograms by Ellen Carey
Published in a limited edition of 200 copies, each with a unique photogram signed by the artist. Printed and bound by Jarvis Press, Dallas, Texas.

**Cover and Dust Jacket:** 100 lb. Mohawk Superfine Ultrawhite Smooth Cover; **Text:** 100 lb. Mohawk Superfine Ultrawhite Smooth Text; **Plates:** 10PT C2S Kromekote Cover; **Typefaces:** Futura PT and Baskerville
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With the rhetoric of a fist-shaking revolutionary, Ellen Carey says she aims with her art “to free the picture from the tyranny of photography’s historical imperative to record and reveal things."

Which is what photography does and has been doing continuously since its beginning. The earliest surviving example, captured by Nicéphore Niépce on a pewter plate about 1826 using a primitive camera obscura, dimly records a courtyard from an upper window of the inventor’s estate in France. Nine years later in England, during what he called “the brilliant summer of 1835,” William Henry Fox Talbot made the first of his “sun pictures,” which still reveal white silhouettes of botanical specimens he placed on sensitized paper outdoors.

It’s the tyranny of the visual referent Carey doesn’t abide—imposed, oppressive and rigorous. Approaching two centuries old now, photography remains subjugated to the representative image. This will always be, and so those who work counter to this cultural and historically prescribed expectation will always be, too.

Carey has veered steadily away from photography’s conventional practice throughout her decades-long career and is today recognized as one of the medium’s most committed experimental artists. Her innovation lies in her manipulation of the traditional photographic process, eschewing the camera and reducing the medium to its essentials of emulsion, light, and paper. In the lightless environment of the darkroom, she wrinkles and cracks the pristine surface of glossy paper, exposing it to brief flashes of illumination to produce images of pure color.

Unrooted in the outward-looking model of photography, but wedded to the physics and chemistry of the darkroom, Carey’s brilliantly colorful abstract pictures are free from the legacy of representation. Her art is the direct product of experimentation and process, the result of color-sensitive paper mimicking the fleeting response of our own eyes to the stimulus of the visible spectrum, but fixing that response on paper in unique and beautiful ways.

ANDREW J. WALKER
Executive Director, Amon Carter Museum of American Art
December 2017
My artistic practice uses the cameraless photogram, a method from the dawn of the photographic medium. In a traditional photogram an object—like a leaf or piece of lace—is the referent, placed between light and light-sensitive paper to record a ghostly outline, a silhouette seen in the negative image, its “shadow.”

I use only light; no object is placed between it and the paper. This breaks with tradition, yet the history of photography is referenced in all my work: the shadow and the silhouette can be found frequently, as can the circle (camera lens), the square (camera body), and explorations of the black, white, and grey palette. My photograms often function as mirrors of chance, lessons taught by the surrealists in their collaborative game called “exquisite corpse,” rotating and assembling images, producing random compositions; here, they are metaphors, underscored by the photographic process itself.

Color is an artist’s universe, color theory (RGBYMC) photography’s planet. An emphatic and always evolving commitment to experiments in color informs my visual art practice, serving as a conceptual point of departure and leitmotif. Advances in color, chemistry, and paper allow my work a bright, pristine palette, mixing and matching with experimental, free-wheeling ideas where overlapping colors make different (color) shadows, yielding innovative and iconoclastic new forms in the paper’s topographic map, blending hue into the physical structure of the object.

The works in my color series Dings & Shadows reconfigure the term “blowup” to highlight visual impact in both form and hue in my abstract compositions. The “ding,” once a lonely and loathsome error, sat forever in the taboo margins of photographic printing. But here it gains a new purpose. My dings catch my shadows, rearranging material (paper/light) in context, creating new meaning with it through context (photogram), underscoring characteristics only found in photography—negative as shadow, light as color—to create abstract and minimal images without any “picture sign” or hierarchy.

Caesura, a newer series represented here, cuts the picture plane in half with a single, vertical fold of the light-sensitive paper; “caesura” means break or pause, as with music or poetry. In my work it references the break between analog and digital in the current discourse around these two processes. Zerogram is the title of one of the later objects in this book, and the 200 unique prints I made to accompany the publication bear the same title. My zerograms orbit
art that happens to be photography with bold and innovative abstractions, focusing on color through light. Zero visits me again in the experience of the color darkroom, where no light is allowed, except upon exposure. I work in total darkness, a light-tight environment that captures the solo performance of my ideas. Randomness and chance are mirrored, lessons learned from the dadaist and surrealist artists, who looked to the unconscious in the dreamlike unknown, the oniric found in automatic drawing.

The zerograms exhibit geometric folds of vibrant color, sharply defined, against white lines and darker shades. The photographic rectangular frame is my material, considered part of my composition, adding floating symmetrical and asymmetrical mini-rectangles that underscore my interest in proportional harmonies found in nature, science, and mathematics. Size across scale echo fractal geometry, repetition and form echo nature, brilliant hues add fresh interpretations to photographic color theory, and the possibilities of the historic photogram unfold anew.

When looking at my work, people often ask: “How was this picture made?” And the question is often followed by: “What is this a picture of?” The first question addresses photography as process. The photographic object often involves an intersection of process and invention, as does the practice of photography itself, and in traditional photography both the process and the invention are “transparent” in that they are understood to be a means to an end, namely, to produce a picture as a representational object. The process is subordinated to the product.

The second question addresses the apparent conundrum of photographic abstraction: the photographic image without a representational “picture” to read. Our culturally and historically prescribed expectations for this medium are that a photograph should both narrate and document, and that it should reveal no trace of the “work” of its production. In my work in photographic abstraction and minimalism, however, the process becomes the subject.

My lens-based, experimental artwork purposely challenges our culture’s historical development of the light-sensitive photograph as a simulacrum of a narratable object. In this way I aim to free the picture from the tyranny of photography’s historical imperative to record and reveal “things.” This forces a break from the past, freeing a picture from the hierarchy of things to be captured, to a picture that is made.

ELLEN CAREY
December 2017
In 1835 William Henry Fox Talbot (1800–1877), the British inventor of photography, conceived of one of the earliest methods of creating a permanent image using light-sensitized paper. They were images made without the aid of a camera. Using flat, recognizable objects like a piece of lace or a leaf, whose contours would be readily legible in the print, Talbot placed these items directly onto the surface of a piece of fine writing paper he had coated with salt and brushed with a solution of silver nitrate. He then exposed the assemblage to sunlight. The result was a ghostly imprint of the object, made permanent by the chemical changes rendered in the paper by the sun. Talbot called his invention “the art of photogenic drawing.” Known today as the photogram, Talbot’s method finds an afterlife in Ellen Carey’s cameraless photographs, in which light, color, and photographic process are the very subjects of her work.

Carey’s unique chromogenic photograms harken back to the medium’s origins, before photographs were made from negatives and could therefore be reproduced many times over. Yet unlike Talbot’s photogenic drawings, which have recognizable subjects, Carey’s works do not have readily obvious referents. Beginning in the 1990s, she began to experiment in the field of abstract photography, removing the objects traditionally traced in photograms and defying the photographic convention of depicting identifiable subjects altogether. Instead, Carey was interested in the representation of light itself as the basis for all photography and the source of visible color.

For her three series featured in this publication—Dings & Shadows, Caesura, and Zerograms—the artist created unique photograms in which the process of creation remains visible in the paper’s folds and creases. Working in the darkroom, Carey first folded and crumpled color photographic paper, then selectively exposed it to filtered light. The resultant image translates the varied spectra into a vibrant mosaic of color ranging from acidic green to warm magenta. The “dings,” or creases in the photograph’s surface, which are usually considered a mark of accidental damage, are in Carey’s work purposeful and left visible. Serving as traces of the artist’s process, the dings demarcate the different chromatic zones as well as reveal the photograph as a unique material object imparted with sculptural qualities rather than as a transparent window onto the world.

Carey’s photograms also draw inspiration from the work of another British photographer, Anna Atkins (1799–1871), whose brilliant cyanotypes of algae introduced color into early,
cameraless photography. One of the few female practitioners of photography in the nineteenth century, Atkins created *Photographs of British Algae* (1843), widely considered to be the first photobook. Containing photograms of botanical specimens floating in a sea of vivid blue, *Photographs of British Algae* infused the chromatic neutrality of early photographs with a burst of color. Carey continues this lineage of women working in the field of color photography, particularly that of the color photogram.

For Carey, color is both the subject and the vehicle of signification in the photograph. Looking at the artist’s photograms, one begins to see color as a physical property of the photograph. For example, in her hexaptych *Dings & Shadows*, reproduced in these pages, color unfolds across six separate panels in which red, green, and blue prints are accompanied by their counterparts cyan, magenta, and yellow. Together, the six prints form the spectrum of the color model used in photographic color processes. In Carey’s work, however, any semblance to natural vision is pulled apart, revealing each color as part of a constructed system determined by the wavelengths of light. By making cameraless photograms lacking in representational forms, Carey makes color the photograph’s subject, a property of light rather than an inherent quality of any specific object. The photogram in its immediacy, recording light unmediated by a camera lens, reflects what the artist has termed “photography degree zero,” where the photographic image contains no identifiable elements.

Even when Carey does employ a camera in making her work, the final photographs do not contain a readily identifiable subject, and color remains the primary object of the artist’s investigation. In her *Pull* series (1996–2018), Carey used a 20-by-24-inch Polaroid camera to create large, abstract photographs. Photographing a blank white surface onto which light is projected through color filters, the artist pulled the exposed paper through the camera, bursting pods of colored dyes that translated the filtered light into streaks of corresponding color. Often shown alongside these color “pulls” are the negatives that were peeled away from their positive counterparts. Together the pulls and their negatives become documents of a performance, recording the physical act of making a photograph.

This performative aspect of Carey’s work, reflected in the works reproduced in these pages, draws from a range of twentieth-century artistic movements, particularly those of process-based practices like Surrealism and conceptual art. The surrealists championed photography for its parallels with the unconscious, finding similarities between the revelation of images in the darkroom with the surfacing of repressed facets of the human psyche in dream imagery. Carey likewise views the darkroom as a kind of dream space where photographic work is born in total darkness. Just as a dream’s imagery surfaces to the conscious mind upon awakening, Carey’s photographic images remain invisible to her until her intuitive darkroom manipulations are completed. And just as a dream’s fugitive images are the very process of what Freud called “dream-work,” the fleeting light captured in Carey’s photograms reflects the process of their own making.

At the core of Carey’s works lies a paradox that is inherent to photography itself: a photograph is a material record of immaterial light. Through her experimental practice, Carey dissolves the medium of photography into pure process and color, recording nothing but light itself and eschewing the representation of a recognizable subject. At the same time, her works reinforce the photograph’s materiality as paper and chemistry. The subject is light itself, and the images reflect the process by which her photographs are made. Oscillating between the paper’s materiality and pure color, between depth and surface, the shimmering, rainbow surfaces of Carey’s photograms resist notions of the photograph as a transparent image, revealing the medium as pictures made by light.

JOY JEEHYE KIM
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December 2017
Light is the essence of photography, yet by necessity, either within the inner chamber of a camera or the confines of a darkroom, all photography begins in darkness. The light-sensitive medium must be kept safely in the dark until, in a controlled and precise way, light is allowed in to pierce the blackness and leave its latent trace. Through chemical processing in the darkroom, the captured image is both revealed and then fixed into a state of permanence. The newly formed print is evaluated in normal room light, refinements are devised, notes taken, and the photographer enters the dark to begin the process again. Testing, trial, and error are the norms of darkroom work.

As photography has transitioned from analog to digital technology, the experience of working in a darkroom has become uncommon. Many photographers still have formative memories of working in darkrooms making black-and-white prints under the soft glow of amber safelights, watching images appear on the paper in the developer tray. The color darkroom—where Ellen Carey makes her work—is different. The safelight in a color darkroom is deep green and so dim that most practitioners, including Carey, choose to work instead in total darkness, save for the brief exposure of the paper to color-filtered light. After exposure, the paper is run through an automated processor or loaded into cylinders with lightproof lids for manual chemical processing. Unlike a black-and-white print developing before the photographer’s eyes, a color photograph cannot be viewed until the processing is completed. Just as in black-and-white printing, exposure in color printing controls the density and tonal values of the print; but there is little control over contrast on color paper, and controlling the color in a print requires a firm understanding of color theory.

In photographic color theory, there are two interdependent systems defining how color is made: the additive and the subtractive. The additive color system begins in darkness; light is added to create color. The fundamental hues of light—red, green, and blue (RGB)—combine to represent all visible colors. An equal mix of all three additive primaries produces white light. The subtractive system begins with white, like a blank sheet of white paper or pure white light. Think of white as the presence of all colors and the subtractive primaries, cyan, magenta, and yellow (CMY), as filters subtracting out parts of the spectrum that are present in pure white. Combining all three subtractive primaries produces black when mixing photographic dyes (but makes a muddy brown color when mixing printing inks).
One way to differentiate the additive and subtractive color systems is to think of the difference between transmission and absorption. The transmission of colored light is additive. The absorption of colored light by dyes or pigments on a white surface is subtractive.

In effect, the continuous spectrum has been divided into six colors: three primaries each for additive (RGB) and subtractive (CMY). The two systems interact, and those relationships are the key to balancing photographic color. The six-segment color wheel shows the interconnections of the primaries. Any color can be made with equal parts of the two colors next to it on the wheel. Each color contains its immediate neighbors. The complement of a color is opposite from it on the wheel.

Cyan, for example, is a blue-green color made additively from equal parts green and blue. Its complement, or opposite color, is red since there is no red in cyan. Cyan absorbs red while reflecting green and blue. Likewise, the color magenta is made of equal parts red and blue. Magenta’s opposite is green. An equal mix of red and green makes yellow. Red and green both contain yellow, but no blue, which is yellow’s opposite. The additive primaries can be printed by combining equal parts magenta and yellow to make red, cyan and yellow to make green, and cyan and magenta to make blue.

Beyond an understanding of this theory, a photographer must also possess patience and a practiced understanding of several other critical variables when working in the color darkroom. The light source for color photo printing includes filters of the subtractive primaries: cyan, magenta, and yellow. These can be precisely controlled in fine increments. Any two of the colors can be used in combination, but using a third color filter neutralizes the effect of the other two.

The color paper itself has layers sensitive to the additive primaries red, green, and blue. The exposed silver grains oxidize during development and couple to dyes in each corresponding layer, hence the name dye-coupler print. The silver grains are bleached and rinsed away, leaving an image of cyan, magenta, and yellow dyes. The paper also has inherent color biases, which can vary between manufacturers and from batch to batch in the same product. Typically, the manufacturer provides a starting suggestion for a “filter pack,” color filter settings to provide a neutral starting point for using the paper. The true color response of the paper is determined by test exposures.

Finally, the particular light bulb in an enlarger has its own color casts that must be considered. A burned-out lamp in the middle of a printing session is a setback since a new bulb will invariably be different in color cast and brightness, and testing will need to begin anew. Similarly, opening a new box of paper from a different emulsion batch dictates another round of testing.

In practice, color negative printing always includes the magenta and yellow filters, never the cyan filter. The cyan filter is used for color-positive printing on color-reversal paper, but the maximum-two-filters-only rule still applies. Because the paper responds in an inverse to its exposure, the photographer must think in terms of the negative, in both lightness/darkness and color response. For example, increasing magenta in the filtration produces its opposite, green, and because the filters have varying densities, a change in filtration requires a corresponding change in exposure. If a print is too red, then an increase in red, made by increasing both magenta and yellow (M+Y=R), is needed. Adding red to the filter pack will reduce red, or increase cyan, in the print. Increasing overall exposure time will yield a darker print and vice versa. An artist like Carey must be fully conversant in thinking of color as its opposite on the color wheel, while balancing that color information with precise exposure (actually a series of exposures, each with a different color filtration) so the resulting print is not too light or too dark.

Carey’s prints from her three series represented in these pages directly engage the fundamental nature of photographic process: the interaction of positive and negative, and the intersection of the photograph as object and the photograph as image. Carey refers to her own work as photograms, though there is no object casting its shadow on the paper as in traditional practice. Technically, there is a color filter between the light source and the paper, but no film negative and no object between the paper and light source. Color is the subject. The folds and bends of the paper itself cast shadows onto its own sensitized surface, forming a visible impression and producing an object that makes an image of itself and a record of the physical action of the artist on the materials.

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December 2017
Published in conjunction with the exhibition Ellen Carey: Dings, Pulls, and Shadows: Amon Carter Museum of American Art, January 20 through July 22, 2018. The exhibition was organized by the Amon Carter Museum of American Art. ©2018 Amon Carter Museum of American Art, Fort Worth, Texas. All rights reserved.

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