

THE DIGITAL AGE

COLOR FULLY REALIZED

BY CAROL McCUSKER AND MARK BERNDT

This essay, the third and final chapter in the history of color photography, examines color in the digital age from the early 1990s to the present. Realizing that the era of digital color is in its infancy, the story of photography's transition from traditional media to digital is as expected as the transitions from wet-plate to film or from complex 19th-century color separations to Kodachrome. Such technological shifts and advances have been a part of the mutability of the medium since its birth in the 1830s. While we currently appear to be going through a period of unprecedented change, it is not unlike that of the 19th and early 20th centuries, since photography has always been technologically driven. Consider that by 1900 countless photographic techniques had come and gone, or held their own: daguerreotypes, calotypes, wax paper and glass negatives, new lenses, albumen, gun cotton, gum bi-chromate, platinum, numerous means of toning, color experiments, manufactured papers, and Kodak's 1888 roll film cameras creating what must have seemed like instant imaging for that time (the equivalent then of digital today). Into the 20th century, all manner of materials made up the photographic store, including businesses catering to printing or providing the newest materials. Some inevitably died off. With change being the norm, the only striking anomaly has been the dominance of the black-and-white gelatin silver print, which reigned from the 1930s to the 1970s. Knowing photography's volatile technological history, in the late 20th century we were overdue for evolutionary changes in the medium.

Beginning in the 1960s with early development at NASA, digital photography grew exponentially. Cameras changed along with the means of capture and processing, challenging more than a few photographers. By the turn of this century, wet darkrooms began to gather dust, Kodak, Ilford, Agfa, and Polaroid either changed or folded, and revered printing papers vanished. At the same time, digital imaging software grew more powerful and user-friendly, traditional paper manufacturers developed surfaces suited to digital color, digital printers improved, inks emerged that fulfilled the need for longevity, and photography moved into an environment less toxic than the wet darkroom (with the notable exception of the detritus that accrues annually with the 3-year obsolescence cycle for computer and photo equipment, increased power consumption, and the exponential

increase in the use of high rag-content papers). What concerns us here are the changes with color in digital photography, and how a handful of notable photographers seen on these pages have integrated its demands into their photographic practice. As photographer Mona Kuhn eloquently stated, "The photographic industry has been generous in offering us many choices. That can be positive or not. It is important to know who you are first, and what you are willing to express, before getting lost in this ocean of available products."

As stated in this magazine's previous issue on the history of color, William Eggleston and Joel Meyerowitz, among others, introduced color as a viable form of fine art expression. But the use of color required either a special lab (Kodachrome) or the set-up of a color darkroom that was expensive and complicated. Most photographers let labs do color processing and printing for them, sometimes overseeing the process. Others, like Edward Burtynsky, started his own commercial lab, which also supported his personal work. One of the most significant revolutions in digital color photography is that now every photographer can print his or her own color, with hands-on control over the outcome, unless they prefer the look of traditional materials from the Lightjet printer, or if size exceeds that of their own printer. In the traditional film workflow, decisions were made by film and paper manufacturers about color, contrast, acutance, and grain structure. A photographer worked with a carefully selected combination of film, chemistry, processing technique and print material to achieve a certain look. With digital processing and printing, those decisions are made after making the exposure. Today, the photographer is in control, with many more options at his or her disposal. Mac Holbert, of Nash Editions, noted for this article that while digital color is completely in the control of the photographer, "it's put a much greater demand on the individual to educate oneself. Without an understanding of color the opportunities for disaster are many. It's shocking to me to see how little color theory most photographers understand. On the positive side, those who choose to educate themselves have the opportunity to express themselves more accurately and emotionally than ever before."



MONA KUHN, *MORGANE*—2008

In 2008, photographer Mona Kuhn (b. 1969) embraced digital capture and output for the first time. She had disliked the unrealistic sharpening and false color in some of the digital work she had seen in its early years. Avoiding the angst of early adoption, she came to digital after many of the glitches had been worked out. This allowed her to find what she needed: more responsive cameras as well as more sophisticated programs. She was convinced by a collector to try the latest version of a digital medium-format camera, and took the camera on a trial run during a trip to Venice. She has since developed a personal way of working with it.

As she shoots, Kuhn checks the screen on the digital back rather than a laptop, preferring to wait until she returns to the studio to re-visit the shoot. "I do enjoy a bit of waiting. Digital has sped up the process to a point that it's a bit self-destructive. It is like driving by a new neighborhood without stopping for a

walk. Special discoveries need time. Each frame has different nuances, and it is the right balance of nuances that bring a message to an image. Nuances need time to be discovered." And although she does her editing on the computer, she still makes prints of her selects. "I pin them up on my studio walls and look at them daily to decide which one carries a message closer to my heart. I still like to have it physically in my hands before making the final choice in editing...because eventually they will belong to this life and not the digital one."

Back at the studio, she works on her images in Photoshop, but opposes composite printing and saturated colors. Micro-adjustments to her proof prints allow her to attain an almost painterly, "calm" palette and atmosphere, from which the final prints are made. Kuhn's subjects and settings conjure up late afternoons and warm summer weather spent languorously



MONA KUHN, *VENICE (WATERSCAPE)*—2008

among friends. The colors within her prints reflect and support this, and she was only interested in using a digital camera if she could achieve the same results. The first prints she ever made in the new technology were pigment, but banding issues led her to Lightjet prints that retain a higher level of fidelity, especially with her nudes. Still, the color tonalities of skin continued to be vexing, sometimes being too yellow or salmon, until a broader color palette and/or multiple proofs generated more accuracy. "Every year color is being interpreted differently in software," she says. Kuhn's delicate images offer an external world of tactile surfaces, of moist light on flesh, water, stone, as well as an internal one of intimacy and reverie. Color activates their sensual core. The reflective air of Venice has for centuries defined the way different tonalities play on that city's surfaces. Kuhn captures this distinctive light and color not unlike the Venetian painters before her.

The opposite of Mona Kuhn is Dutch artist, Ruud van Empel (b. 1958), who began his career as a 3-D graphic designer before becoming a photographer; this is not lost on his imagery. The painters Edvard Munch, Henri Rousseau, and Otto Dix are among his influences. Their use of a flattened space, without shadows, distills their content to its essence, and vibrant color establishes their emotional tenor. Van Empel's Cibachrome photographs work similarly. They portray fictional, verdant jungles or dark desert landscapes lit by moonlight that are populated by a singular contemplative child who seems part of a biblical, science fiction or fairy tale narrative. To produce these portraits, Van Empel makes photographs of several children, and combines their faces through a graphics program to create new, non-existing children. Color completes the fiction. Cibachrome's trademark is shimmering deep color; face-mounting to Plexiglas adds