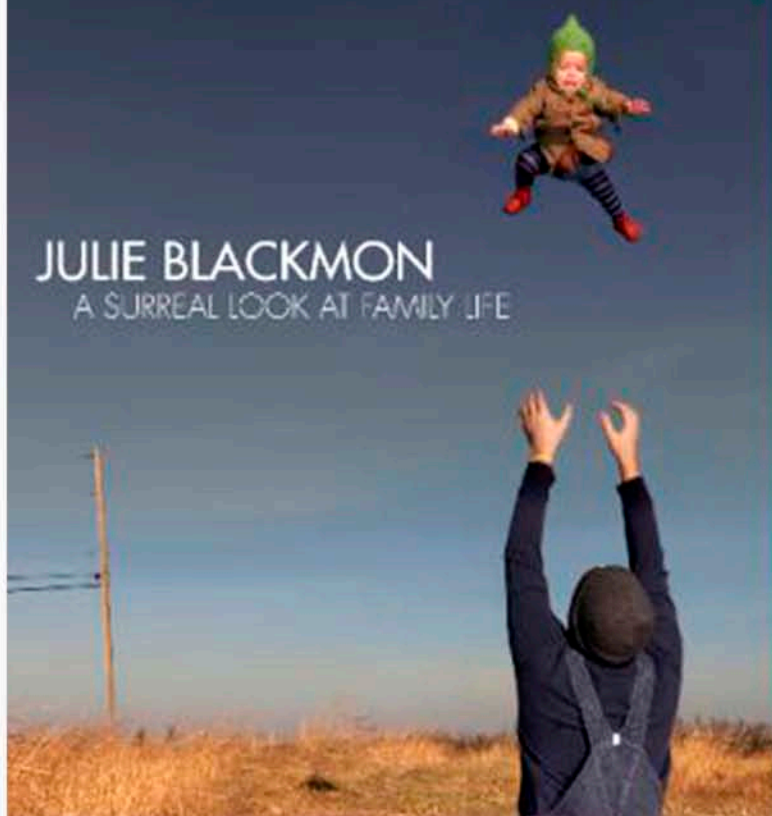


FOR COLLECTORS OF FINE PHOTOGRAPHY

# COLOR

LARRY SULTAN  
PAUL OUTERBRIDGE  
HISTORY OF COLOR  
PHOTOGRAPHY

JULIE BLACKMON  
A SURREAL LOOK AT FAMILY LIFE





# 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, inksets 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."



RUUD VAN EMPEL, WORLD #27—2008

IMAGE COURTESY OF STUX GALLERY, NEW YORK, AND JACKSON FINE ART, ATLANTA





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





RUUD VAN EMPEL, *MOON #7*—2008

an extra dimension of saturation to that schema. The result is an almost hallucinogenic, glowing composite photograph with detailed eyes, foliage, or insect minutiae benignly occupying an enchanted landscape. His images are of innocence and beauty, but they also subvert photography's very premise: the specificity of the real. Working contrary to those expectations, Van Empel is engaged in the manufacturing of reality that is also a part of

photography. A wholly different and innovative type of image emerges, consisting of new technology and the mythic.

In contrast to Van Empel is the work of Don Bartletti (b. 1947), a Pulitzer Prize-winning photojournalist who works for the *Los Angeles Times* and several other publications internationally. Before digital technology, the photographer rarely saw



DON BARTLETTI, *THE LUCKIEST KIDS IN TOWN*, KENYA—2005



DON BARTLETTI, *SPENT*, TONALA, CHIAPAS, MEXICO—2000

BOTH IMAGES COURTESY OF DON BARTLETTI AND MUSEUM OF PHOTOGRAPHIC ARTS, SAN DIEGO





ELIJAH GOWIN, *FALLING IN TREES2*—2006

his work before it went to print. By 2001, he made the complete transition to digital capture and output. Digital allowed him much more flexibility and control. With film, if he made miscalculations or errors while shooting, the images could be a total loss. With digital, however, he can correct his color and contrast in Photoshop; instead of using filters on his camera, he can digitally adjust for florescent or incandescent lighting. He can also dodge and burn in Photoshop to open up shadow detail and control highlights. When Bartletti was given a solo exhibition at the Museum of Photographic Arts, San Diego, in 2006, Icon Photographic Imaging in Los Angeles worked with him to create the show. Bartletti's digital files allowed 30x40-inch and 40x60-

inch color prints. Looking into the depths of a photograph, seeing details accurately rendered, brought the experience back to life and thrilled both photographer and lab techs. Improved software has helped him generate more faithful files that can be corrected in his car, tent, or hotel room (when in the field) for accurate color, contrast, and saturation, before sending or saving a file for whatever news agency he is working for. Bartletti's timing and risk-taking transport these images from the merely descriptive to a visceral sense of joy or exhaustion as seen in these images from Kenya and Mexico, respectively. They allow us to see and hopefully understand something that might look a bit familiar, or tragic, all through an unfailing sense of composition and surface beauty.



ELIJAH GOWIN, *FIRE I*—2006

**E**lijah Gowin (b. 1967) completed his series *Of Falling and Floating* after receiving a Guggenheim Fellowship. The series consists of "multiple figures from different places and times brought together photographically but synthesized the way a painter would do it," says Gowin. The prints are composites of figures (some taken from the Internet) that float or fall into bodies of water or trees, acting as "metaphors," he explains, "for a global feeling of anxiety, loss of control, the helplessness we feel."

Although the basic process of collaging images using Photoshop is fairly standard, Gowin has imposed his own signature at every turn. The flatbed scanner Gowin used is old and malfunctioning (at last, an artist working with vintage digital

tools), leaving signature bands of color that run vertically down the paper, adding to the figures' sense of velocity, or making them feel, particularly in their color palette, like faded snapshots or "stills" culled from 8mm film footage. "I am also scanning negatives made on inkjet paper (not something you are supposed to do), which makes them a bit blurry and scarred. I saw it as a struggle between the old world paper and the new digital machine. As I am printing these as inkjet prints myself, I can be very particular about how the colors come out. In hindsight, I was looking for a way to approach digital tools in a personal and alternative way." In both *Falling in Trees2* and *Fire I*, the natural light on skin and perplexing or disturbing content (some conjure





JIM MCHUGH, *THE ORPHEUM THEATER, LOS ANGELES*—2008



JIM MCHUGH, *MARIPOSA*—2008

the World Trade Center or some other Armageddon) are riveting because the scale of figure-to-landscape is correct. Yet everything else feels wrong, contributing to our dis-ease — no shadows, no depth of field, uneven, constructed frame, artifacts of their assemblage, and an aged palette, as if the images were found in an archive a hundred years from now.

Gowin's process became a battle, and finally a marriage, between old and new photographic means; the color distortions are a major component of this. Regarding the painterly, his interception of the scan through the streaking of color thwarts the purely mechanical, creating images that feel historical, or personal. They comment on society by appropriating the very images that constitute it, siphoned through a lyrical sensibility drawn to

the oblique pictorial narrative. Untidy, imperfect, "the photograph becomes a place for our humanness to remain in tact," he writes, despite the digital imperative of progress.

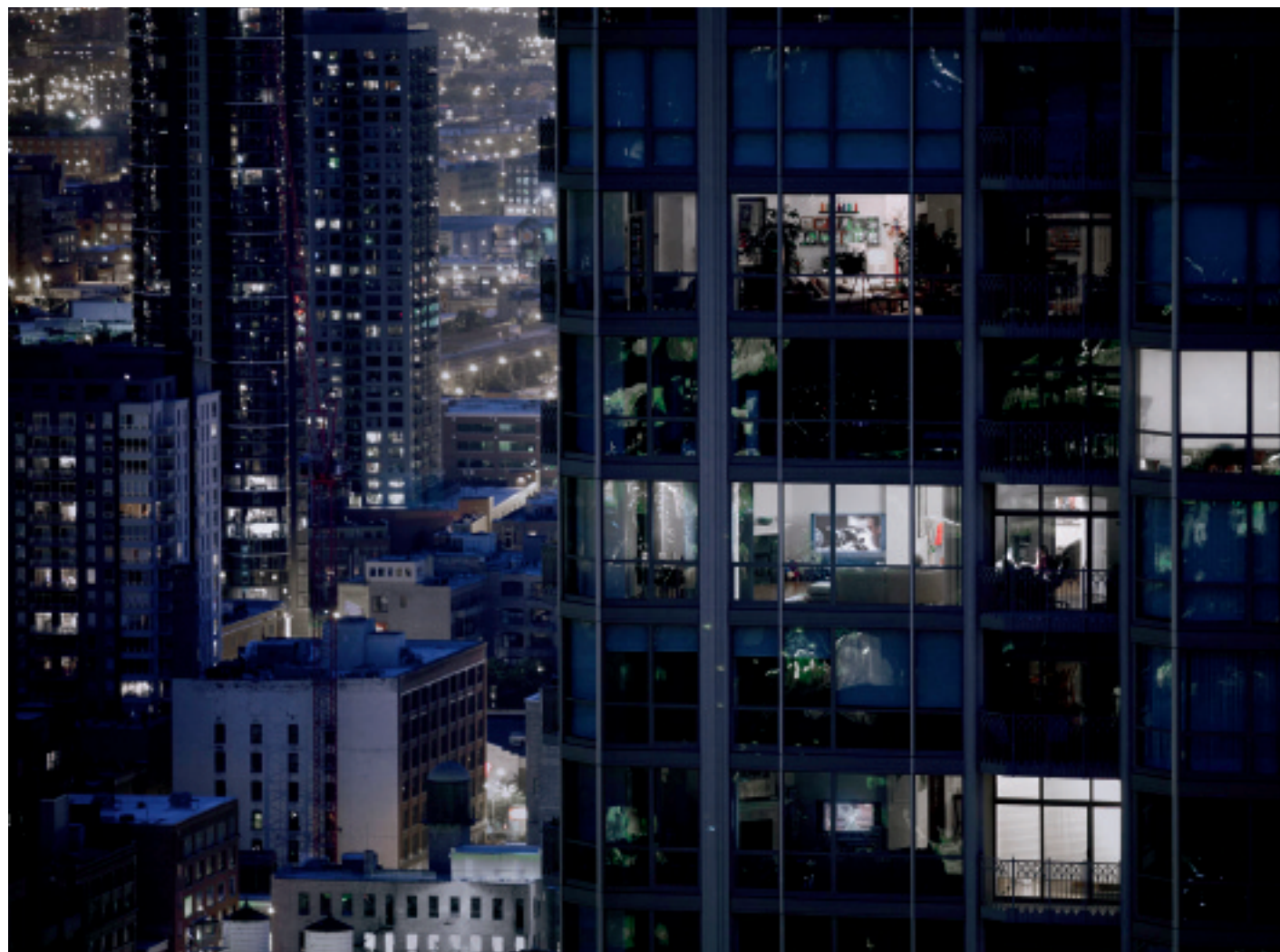
**J**im McHugh (b. 1948), who is a successful commercial and fine art photographer, has embraced the transition from analog to digital with all of its benefits and pitfalls. His images of historic Los Angeles landmarks evoke the mood of that city's past. The imperfections and happenstance that his collection of old cameras and lenses give to his images, and the unpredictable nature of his stockpiled—and now extinct—Polaroid films, which give a distinctive patina to his work, have an unmistakable impact on his vision. "The surface of the original has a character

all its own," he says. "I'm interested in the creation of the object, not just the image." McHugh is mindful of preserving the presence of the Polaroid's surface texture in the final print. But with the original Polaroid in hand (curing sometimes up to a year before proceeding), the process to the finished print is singularly digital. After scanning his originals in-house, his personal interpretation of each image in Photoshop evolves over days and weeks of experimentation and consideration. Subtleties of tone and color are explored and combined as the image takes shape, layering a depth into the images that recalls the most revered fine-art printmakers. Stacks of hard drives, multiple monitors and computers, along with "darkroom" skills acquired through late nights of creative, and sometimes frustrating, computer work,

attest to the presence of the digital influence. Eventually the finished image glows on screen. And different from his commercial process of assignment shooting, for which film was delivered to the client for publication, he has added large-format printing to his studio to maintain hands-on control of his images through to the final presentation.

**M**ichael Wolf (b. 1954) considers himself a photographic anthropologist and sociologist. Initially he focused his work on the architecture and artifacts of Hong Kong. His most recent series *Transparent City*, and its companion *Transparent City Details*, is about Chicago. The Hong Kong series began on 2¼x3¼-inch film. He felt limited by the optimal print





MICHAEL WOLF, *TRANSPARENT CITY #88*—2007

size of 27x34 inches, and actually re-shot it on 4x5 film to have enough detail to make the 48x60-inch prints he desired. For the Chicago series, however, he worked with a digital camera. "I started shooting digital in 2007. I realized that the medium format back was sharper than the scanned 4x5-inch transparencies. Detail is important. People get very close to my images, and want to see exactly what's going on in them – what kind of picture does a person have on his wall, things like that."

The life he speaks of here is what he photographs; the oftentimes solitary lives of others in the transparent city. Shot when night falls and indoor lights come on, he records them and then digitally distorts and hyper-enlarges some areas. He has described his work as "Edward Hopper meets Blade Runner." In *Transparent City #88*, there is also a reference to Hitchcock's *Rear Window*. The center apartment appears to have the signature poster image from that film (Jimmy Stewart with camera and telephoto lens to eye) on the television screen. The city's minimalist grids, their infinite yet subtle vari-

ety, and our voyeuristic eagerness to look into people's domestic or office spaces offer amazing visual pleasure. Color intrudes on these almost exclusively grey pictures as if to announce signs of life, a blood-flow of sorts that surges through the steel arteries of a concrete jungle.

Wolf has a producer and lab in Hong Kong who make his large format prints, up to 48x60 inches on the Lambda, the larger 72x90-inch prints on the Lightjet. Regarding the value of digital, he notes two significant distinctions. First, he is able to check his images for critical sharpness (essential for his work) each evening on his laptop, rather than waiting for film to come back from the lab. If need be, he returns to a rooftop to re-shoot an image. Second is convenience. Critical work on the images is done back at home after he's finished the job, dodging and burning, making masks to burn in windows. "I was in the darkroom for 20 years. All the things I do on a monitor are the same; digital is just a more comfortable way to work without breathing fumes." Wolf values his wet darkroom years, howev-



MICHAEL WOLF, *TRANSPARENT CITY #32*—2007

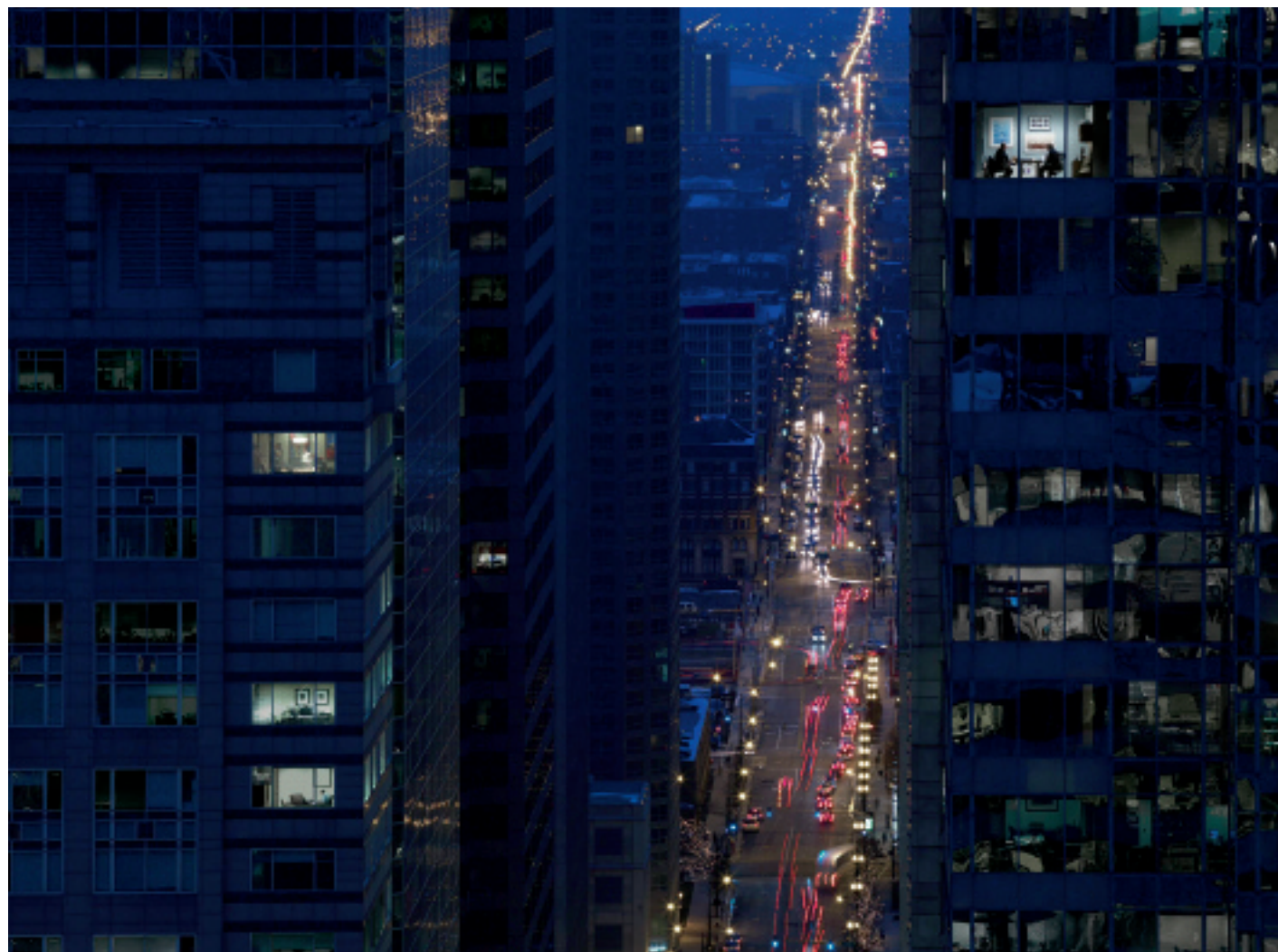
er, and feels it enhances his digital work. "I've noticed that younger people who have never worked in the darkroom have a great deal of difficulty working on an image, to focus on important things. It's very subtle what you can do by just darkening certain areas—focusing attention on certain parts." Yet, regarding the insinuation of computers into photography and into our everyday lives, he notes, "I think everyone's computer time has increased dramatically, and sometimes I get fed up because I'm spending hours and hours every day in front of a monitor, and life is more than that."

Color has always been a signature of Edward Burtynsky's (b. 1955) photography. Looking at the scars of man's impact on the land, his images tell the tale of excavations, mineral riches, and toxic tailings, as seen in *Silver Lake Operations #2, Lake Lefroy, Western Australia*. They serve as "metaphors to the dilemma of our modern existence," the photographer says. "They search for a dialogue between attraction and repulsion,

seduction and fear." Part of Burtynsky's *Australia Mine Sites* series was shot from the air with a hand-held medium format digital camera. In order to capture finer and finer detail for his projects, that now include documentary film and 60x80-inch exhibition prints, Burtynsky plans to upgrade to higher resolution digital capture, as digital marches ever-forward. Large, vivid, and beautiful in their painterly abstraction (as if from the hand of painters Cy Twombly or Richard Diebenkorn), these aerial photographs are the product not only of Burtynsky's environmental concerns but, practically speaking, of a long tutorial from the mid-1980s to the mid-1990s, first in wet darkroom color chemistry and then digital that have taught him how to render one powerful image after another.

In 1985, Burtynsky founded Toronto Image Works, a darkroom rental facility and custom photo laboratory he created in order to do his own color work and make enough income by processing other photographer's work to fund personal projects. Swept up in the necessary transition to digital in the mid-





MICHAEL WOLF, *TRANSPARENT CITY #85*—2007

1990s, the lab now includes digital imaging, educational workshops, a media computer center, and an art gallery. He developed a cautious approach to the newest technologies, having weathered the ups and downs of early adoption such as the limitations of primitive iterations of Adobe Photoshop, hard- and software glitches, color fidelity and longevity, and so on. As materials and technologies caught up with the demands from photographers and collectors alike, he has seen the specially manufactured papers and inks suited to digital color and output devices with extremely refined tolerances. All of this has been applied to TIW, making it one of the most successful, cutting edge processing labs in North America.

This is not unlike the journey of Nash Editions. Before traditional photo labs dreamed of embracing the digital future, Mac Holbert and Graham Nash were at the fore-

front of the development of digital printing. Experimenting first in 1988 with scanning and manipulating photographic images on the computer, Nash Editions opened its doors in 1991 and has led the advancement of digital printing for over twenty years. With a clarity usually reserved for the proprietors of those "Psychic" storefronts with a neon hand in the window, Mac and Graham saw the future rushing in. "Actually, I am a little surprised that it took as long as it did. When I saw my first IRIS print I saw the future...immediately. It was so obvious. I remember Graham and I at Photokina in 1992 looking at all the "traditional" photo equipment and commenting that it would all be gone by the turn of the century."

Now it's hard to find a color lab that still uses enlargers for color printing. Most film originals are scanned and printed digitally, even if the output is to conventional color print materials, as with the Lambda and Lightjet printers. In fact, those traditional

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EDWARD BURTYNSKY, *SILVER LAKE OPERATIONS #2*—2007

materials have been optimized of late to meet the special demands of laser and LED exposure. Despite the digital exposure, many photographers continue to prefer the familiar look of C-prints, while others favor the more tactile paper varieties offered for inkjet printers. And, of course, where the expense of a Lightjet printer makes it the tool of commercial labs (not unlike Kodachrome in the 1940s), even large-format inkjet printers are available to individual photographers. Nash Editions pioneered, and remains committed to, inkjet output over conventional materials. "Ease, accuracy, economy, and permanence," says Holbert, "[that's] hard to beat with any other technology."

And so photography forges relentlessly on. Today, the availability of 35mm and medium-format digital cameras with resolutions exceeding that of their like-format film ancestors, and the maturity of sophisticated and stable digital printing technologies

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at a relatively affordable cost, has put more photographers in control of their color output from start to finish than ever before. And while the demise of many traditional resources and their dwindling consumer base threatens near-extinction for the wet-darkroom habitat, encroached upon by megapixels, computers, monitors and hard drives, digital color photography is the pedal-to-the-metal transition that established and burgeoning photographers must accommodate, explore, absorb, and finally embrace.

As it was with the Autochrome and the introduction of Kodachrome, digital color photography represents a significant spike on photography's timeline. The pursuit of color, begun by James Clerk Maxwell in 1861, has now been fully realized. Mac Holbert is perhaps the best person to have the last word here: "No longer being forced to accept the color the process delivers, photographers can now use color on an unprecedented variety of surfaces to fully realize their vision."