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Scandalous Images, Divine Light: Photography and the Aesthetics of Scanography

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SCANDALOUS IMAGES, DIVINE LIGHT: PHOTOGRAPHY AND THE AESTHETICS OF SCANOGRAPHY

BY MATT singers
Yes, it is presumptuous to call scanning an “art,” when it is really more of a craft, but “The Craft of Scanning” doesn’t sound as sexy, so we will consider it for the time being as one of the fine arts, like music, or painting, or dance.

— PAUL ROYSTER, "THE ART OF SCANNING"
FANS OF MAD MEN will recall the appearance of
the lumbering Xerox 914 in the Sterling-Cooper offices. Initially, Joan struggles to find a perma-
nent location for the machine, so she stows it away
in a corridor. Later, when Peggy returns to work,
she finds it sitting opposite her desk. Co-workers
agonize Peggy by lollygagging next to the
machine as it spews noise and heat; even a repair-
man feels the need to lecture her on its sensitivity.
“This is a delicate piece of machinery,” he says.
“You don’t just shove paper in it, you don’t bang
on the buttons, you don’t sit on the glass. If you
want it to work, you have to treat it with respect.”
Exasperated by their bullshit, Peggy declares to
Roger, “It’s hard to do business and be credible
when I’m sharing with a Xerox machine.”

It’s a telling narrative. On the one hand,
Peggy’s relationship to the 914 is parabolic: her
proximity to the machine signifies that her labour,
like the machine’s, is perfunctory, of less value
because of her gender; on the other hand, Peggy’s
co-workers romanticize, even fetishize, the 914
for its document-copying efficiency. Mad Men’s
treatment of the photocopier reminded audiences
of the potential aura of the photocopier, of scan-
and-print technology, of the ability to replicate
the real with the real. What is it, exactly, about
this technology that cuts so deeply?

In 1957, American engineer Russell A. Kirsch
produced the first image scanner. Kirsch, then
part of a research team at the American National
Bureau of Standards, developed a mechanical
drum scanner that could “trace variations of in-
tensity over the surfaces of photographs.” One
of the first digitally scanned images was a 30,976-
pixel scan of a photograph of Kirsch’s infant son
Walden, which now resides in the permanent
collection of the Portland Art Museum. Kirsch’s
discovery stands as a precursor to computer-
ized axial tomography (CAT scan), which aided
in preparations for the Apollo 11 moon landing
in 1969, and is widely considered the antecedent
of all image-scanning devices in use today. Most
people have never heard of Kirsch, nor of the
revolutionary scanned image of his child, yet
Life magazine included the image in its list of the
hundred photographs “that changed the world.”

But Kirsch is only one piece of the puzzle.
It wasn’t until the invention of Xerography—
dry writing—and the commercial success of
the Xerox 914 that the aesthetic potential of
scanning-and-printing was actualized through
photocopy art, better known as “Copy Art.” In
Copyart: The First Complete Guide to the Copy
Machine, Copy Art was defined as “anything
that has been created, transformed or enhanced
through the use of the copy machine.” Artists
such as Barbara Astman, Sarah Jackson and Nell
Tenhaaf approached the photocopy machine as
an experimental imaging apparatus that could
reframe critical aesthetics. Their work helped to
situate “the photocopy process as a culmination
of the modern technologies of printmaking,
mechanical reproduction, electronics, photo-
graphy, and most recently, digital technology.”
Furthermore, much like video art, which emerged
in the 1960s and ’70s, the photocoper offered a
viable alternative to the patriarchal hegemony
of artistic media such as painting, drawing and
sculpture, which, in turn, opened up new spaces
of investigation for women and queer artists.

Not only did Copy Art draw together a
broad range of aesthetic media, it also provided
discernible “link between Mail Art and digital
technologies.” In the 1980s, it was Nancy Burson’s
contentious series of digitally appropriated
photographs depicting individual “types” that
introduced computer scanning technology into
the realm of fine-art practice. Challenging
assumptions about “photographic truth at the
birth of digital manipulation.” Burson would
eventually develop computer-generated composite
imagery in which the faces of individuals could be morphed into a new image. For example, in *Big Brother* (1983), Burson generated a digital composite image that synthesized the countenance of malevolence, represented by Hitler, Stalin, Khomeini, Mao and Mussolini, in an attempt to identify (and personify) the face of evil. However, for Allan Sekula, Burson’s work was “appallingly stupid,” harkening back to the role of photography, used by pseudo-scientists such as Francis Galton, in the spurious practice of physiognomy. Nevertheless, Burson contributed to the development of digital-imaging software that ages the faces of missing persons to aid in locating them, a practice still used by police and the military.

Artists continue to scrutinize how image-scanning technology affects our ontological perception of ourselves, others and reality itself. Yet some critics and theorists warn us about the omnipresence of digital technology in post-industrial societies. According to Mark J.P. Wolf, “Digital technology promotes a quantized style of thinking that produce[s] a limited, if not hazardous, way of looking at the world, changing the nature of cognition and the individual’s link to lived experience and intersubjective reality.”

In the era of the digital sublime, *looking* at images has been replaced by *scanning* images; to look is to think and feel, whereas to scan is to skim, to locate information rather than engage with and understand it.

Google’s massive software infrastructure, including Google Street View and Google Books, uses scanning technology as a central facet of its information-accumulation project. The latter has spawned an entire universe of websites, critical essays and publications dedicated to the accidents that occur during the labour-intensive flatbed scanning process. In fact, the practice of surveying Google Books for detectable errors in the
scanning process has become something of a (sub)cultural phenomenon in which “scavengers” sift through billions of pages to catch a glimpse of a screw-up in a supposedly “seamless interface”—those little moments in the course of collecting data that are defective, blemished and unequivocally human. Reading books has no place here.

While inquisitive scavengers such as Benjamin Shykin have published books on the appearance of workers’ hands during the image-scanning process, it was Andrew Norman Wilson’s series *ScanOps* (2012, ongoing) that most convincingly demonstrated the political implications of Google’s scanning technology. In 2007, Wilson, hired by a video production company to shoot footage of Google’s campus, encountered data-entry employees coming and going from their ten-hour shifts. The building that housed the workers whose hands occasionally appeared in Google Books was informally named “ScanOps.” Caught filming these workers, Wilson was immediately fired. “Google gathers its income from the exchange of information and knowledge,” he says, “creating additional value in this process. Google, as we know it and use it, is a factory.” Perhaps it is because Google operates as a factory that the preoccupation with workers’ hands possesses such symbolic power.

As far as I can tell, no one has ever asked if the hands that appear in Google Books are deliberately placed there. If scanning technology is inherently flawless, then the presence of the human hand must be an authorial gesture of resistance against the dominance of the machine in digital labour. *ScanOps* and countless other books and websites that spotlight the hands in Google Books emphatically declare that scanning technology is inherently flawed because it requires human labour, and imperfection is a fundamental, ineradicable feature of human labour. But this explanation is far too simple. More to the point, they are also enamoured by the idea that Google—the putative king of the digital domain—depends on the exploitation of human bodies and repetitive menial labour for its existence and profitability. The hands in Google Books become a kind of cybernetic organism through the digital imprinting of the human body and its storage as data.

Artist and blogger Greg Allen stumbled across an eighteenth-century treatise on hydrology titled *Wohlgemeinte Gedanken über den Dannemarks-Gesundbrunnen*. The treatise had been scanned at the Bavarian State Library in Munich on December 15, 2008, during the early period of Google’s digital-scanning project. Interference in Google’s algorithm distorted the German letters, producing a beautiful topography of sinuous digital waves. The irony is, of course, that a text about the behaviour of water took on the shape of digital waves. Taking his cue from Sigmar Polke’s handmade photocopy artist book *Daphne* (2004), Allen downloaded the full text as a PDF copy, then formatted it for a print edition. A paperback version of the resulting 281 pages is available for purchase online at a cost of $24.13 CA. “The book also includes Google Books’ two-page boilerplate foreword,” remarks Allen, “explaining what they wish would happen with scans of public domain books. Which is adorable.”

The absurdity of Google’s appropriation of others’ intellectual property is not lost on Allen. The more sinister overtones of Google’s features are still unfolding in art and visual culture. Michael Wolf won honourable mention in the World Press Photo contest in 2011 for taking photographs of Google’s Street View images, and then cropping and enlarging them. Reconstituting photojournalism and the photographic medium itself, Wolf skinned through Google
Street View to locate the blips, blunders and blights of the human condition: In *A Series of Unfortunate Events* (2010), individuals with blurred faces fight, shit and die in the streets; in *Fuck You* (2011), others direct their middle finger at the Google Street View camera, presumably for documenting their identity and whereabouts with its detached corporate gaze. Wolf’s photo-journalistic framework continues the legacy of Eugène Atget, Lee Friedlander and Vivian Maier, who produced (and collected) hulking archives of street photography. Now, street photography has become disembodied, even obsolete; rather than the photographer going to the street, the street comes to the photographer.

Like Wolf, Jon Rafman skims the digital archives of Google Street View, but he then takes screenshots of selected images and reposts them to his own website as part of his 9-eyes.com series. Here, among mountain vistas, country scenes and other assorted subjects, we find evidence of violence, fear and hatred; Rafman’s pictures run the gamut from idyllic sunrises to burning forests. To scroll down the page produces unpredictable results, much like exploring the Internet itself, and evokes the experience of the flâneur—the urban dandy who leisurely observes street-level happenings, the cobblestone connoisseur. Characterizing his earlier work as romantic, Rafman believes that “there’s a flâneur-like gaze that crystallizes in the Google Street Views of Nine Eyes.” 13 This paradigmatic shift from public to private flâneurship comes at a time in which public space is increasingly endangered by consumer capitalism and the surveillance state via advertising, CCTV and Google Street View. Rather than meander the streets of Paris, New York or Berlin, we can now sit in our own dwellings, half-naked, drinking cold coffee and perusing Web 2.0 programmes such as Facebook, Twitter and Instagram for paparazzi shots, cat videos and porn, as well as evidence of human wreckage. The flâneur 2.0 has arrived.

The commingling of scanning technology and photography in contemporary art proceeds under the nomenclature “scanography.” Although the term has failed to catch on within critical art discourse, it has been widely used by amateurs and hobbyists since the late 1980s, when flatbed scanners first became readily available on the commercial market. What is particularly fascinating about their work is its inclination toward scientific investigation, its engagement with the visual offshoots of botany, entomology and anatomy. A quick glance at scanography.org, various guidebooks on scanography or Google image search reveals a superfluity of objects and materials that have fallen under the scanner’s light—dead mice, children’s dolls, moths, hands, bullets, breasts, bones, bacon, examples of taxidermy, water, fruit and so on. With the optical resolution of today’s digital image scanners exceeding 5,000 pixels per inch, scanography is heavily indebted to macrophotography—extreme close-up photography—which remains ideal for collage and visual abstraction. 14

Scanography has shifted primacy back to the medium of photography, which puts it at serious odds with new media’s fixation on process-oriented practices. 15 It is also at odds with the definition of postmodern art practice as existing outside a field of medium-specific relations. For Rosalind Krauss, “Postmodern practice is no longer organised around the definition of a given medium on the grounds of material, or, for that matter, the perception of material”; 16 this, Krauss believes, sets up the theoretical structure for what she deems the “post-medium condition.” Scanography is not, nor can it ever be, defined simply by its content or material; rather, it is defined by the divine and undiscerning light of the image scanner itself. All materials and subject matter,
regardless of the differences between them, can be arranged on the surface of the flatbed scanner by the artist or student or hobbyist, but the result is inevitably determined by the computer’s interpretation of the visual data. Scanography is an art form not only **conditioned** by its medium; it is **disciplined** by it as well.

While unprecedented numbers of amateur and hobbyist scanographers continue to take up the flatbed scanner, many contemporary artists are similarly lured by the aesthetic trappings of digital scanning technology. What distinguishes them, evidently, is that the artists approach scanning effects as discursive tunnels to the political. For example, in his series *Intervals* (2013, ongoing), Raymond Boisjoly set his iPod screen onto the surface of a flatbed scanner, then dragged it across the scanner during the scanning process in order to generate a pixelated distortion of the image, thereby questioning how reality is hierarchically structured by the visual. In works such as *Buffy Sainte-Marie: Illumination; 1969/2013*, Boisjoly registered Sainte-Marie’s television performance of 1969 on the scanner while simultaneously adding his own performative marks to the image. Beyond the implications of his formal gestures, *Intervals* is as much about the precariousness of digitally scanned imagery as it is about “the assertion or erasure of cultural identity.”

Critics have tended to focus their attention on issues of content—particularly Indigenous cultural identity—rather than the specificity of the medium or the work’s formal elements, and they therefore fail to consider the work as a whole. Many are unaware that Sainte-Marie’s own visual art practice has, since the 1980s, explored the effervescent pixelation of historical photographs of Indigenous women and men. In a sense, Boisjoly is continuing the rich tradition of abstracting images in an expanded field of digital representation initiated by Sainte-Marie and other artists. Yet one could argue that his work writes the image as much as it records it—his iPod serving as his brush and the scanner as his canvas. If this is so, then Boisjoly can be said to explore the aesthetic potential of manipulated digital imagery by folding scanning, photography and painting in on themselves. This is what is meant by scanography.

The scanned body emerges as a powerful discursive subject in fine-art scanography. Part performance, part digital-scanning project, Suzy Lake’s series *Reduced Performing* (2008) sees the artist blinking, breathing or crying while she submits herself to a seven-minute full-body scan set against a white background. Formally speaking, the light of the scanner would have recorded Lake’s body as flat, motionless and inflexible, so much so, in fact, that, rather than animating it, the fixity of the scan would have given it the appearance of being in rigor mortis, the bed of the mechanism serving as a white casket. To counter this effect, Lake introduced movement during the scanning process, shattering the anchored stillness of the image. In other words, Lake’s use of the scanner suggests that, like the photographic camera, the image scanner performs reality rather than merely imitating it. That being said, it is not a coincidence that Lake produced her full-body scans less than two years after the first full-body scanning devices started to replace conventional metal detectors at airports, train stations and sporting events (while the controversy surrounding them exploded). Some critics, including the American Civil Liberties Union, have deemed full-body scans in public spaces akin to “virtual strip search[es].” Lake’s work comes at a critical period—when the private body and digital privacy are being eroded, if not eradicated. Following in the footsteps of its earlier cousin, the polygraph machine, invasive scanning technology such as the full-body X-ray completes the...
objectification of the human body, penetrating its skin under the rationale of surveillance.

Kirsch could not have envisioned the depth and breadth of influence that his invention would have nearly fifty years later, nor could he have anticipated the frequency of digital scanning after the events of 9/11. Crossing a border, using a credit card, boarding a flight, shipping goods internationally, entering a stadium, copying a QR code, searching Google Street View, driving along a toll highway or tracking a drone, the digital scan has become ubiquitous in modern life. And while it serves as a productive instrument for exploring the aesthetics of photography, digital scanning technology is now employed as a fundamental, if not the fundamental, instrument in the “war on terror.” In a perverse twist of fate, the technology once used to produce Kirsch’s picture of innocence has now become a tool for the detection and deterrence of terrorist and other criminal acts. Further, it is similarly used by governments to spy on private citizens who pose no threat to the social order, demonstrating the hegemonic power of the surveillance state.

Artists are moving on from flatbed scanning into 3D scanning and printing, the implications of which are still unfolding. In Canada, specifically, visual artists are fervidly taking up 3D scanning and printing. For instance, Douglas Coupland has been touring Simons department stores across the country, scanning and printing 3D mini-busts of shoppers. Shoppers get to keep their busts, but Coupland gets to keep their data in order to create a “digital portrait” of Canada that will be installed in the Yorkdale Simons store in Toronto in 2019. While Coupland deems 3D scanning and printing “the next big tech tsunami waiting to inundate the art world,” the technology seems to be little more than an updated version of Nancy Burson’s morphing programming from the 1980s. Has much changed? Coupland’s contemporary,
Edward Burtynsky, has labelled 3D printing “photography 3.0,” an apt moniker that implicitly compares the move from analogue to digital to the shift to scanning and printing technology today. His 3D printing studio, Think2Thing, co-founded with designer David Didur, recently started, in collaboration with Ryerson University, the B3D Innovation Fund, providing inaugural grant recipients Geoffrey Farmer and Duane Linklater with $50,000 CA each to forge new bodies of work using the latest 3D printing technology. This project has since become one of the most anticipated in recent memory.

Arguably, however, the most influential 3D scanning and printing project, whose effects have rippled through critical aesthetics and politics alike, was created outside Canada. After hacking an Xbox Kinect motion-sensor device, artists Nora Al-Badri and Jan Nikolai Nelles spent three hours one Sunday secretly scanning the famous 3,300-year-old bust of Queen Nefertiti in the Neues Museum in Berlin. Roughly three months later, they published the data as a free, downloadable torrent in the public domain under a creative commons licence, thereby circumventing the museum’s strict no-photographs policy and potentially spawning any number of other 3D printings of the bust. “With the data leak as a part of this counter narrative,” declared the artists, “we want to activate the artefact, to inspire a critical re-assessment of today’s conditions and to overcome the colonial notion of possession in Germany.” 22 A little more than a hundred years ago, the Nefertiti bust was “discovered” by German archaeologists in Amarna. In a gesture directed at redressing acts of colonial theft, Al-Badri and Nelles have now printed the bust in 3D and returned it home, to be permanently installed at the American University in Cairo.

The potential ramifications of 3D scanning and printing are tremendous; it throws open to question issues of ownership and repatriation, intellectual property rights, cultural authority, the autonomy of objects and, often underestimated, the notion of the aura. Where do we go from here? It’s far too early to know, but the impact and significance of 3D scanning and printing will become evident only when the technology becomes more accessible and affordable for artists. Only then will we be able to determine and assess the cultural value of digital scanning technology.

Images scandaleuses, lumière divine : la photographie et l’esthétique de la scanographie

En 1957, l’ingénieur américain Russell Kirsch, alors membre d’une équipe de l’American National Bureau of Standards, développe un scanner à tambour mécanique pouvant saisir les intensités d’une photographie, appareil avec lequel il créera la première image numérisée. Aujourd’hui, en art contemporain, le mélange de la technologie de numérisation et de la photographie opère sous la nomenclature de « scanographie ». Bien que le terme n’ait pas réussi à se tailler une place dans le discours critique sur l’art, il a été grandement utilisé par les amateurs depuis la fin des années 1980 au moment où les lecteurs optiques à plat ont fait leur apparition dans le commerce. En plus d’offrir un survol de l’histoire de la technologie de numérisation en art et dans la culture visuelle, le présent essai situe la scanographie dans la matrice de la surveillance commanditée par l’État.