

IMPERIAL COLOR IN THE PRESENT TENSE: THE PHOTOGRAPHY OF SERGEI PROKUDIN-GORSKY

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THE ADVENT OF color photography in the mid-1930s was a global revelation for photographers and viewers alike. However, from the earliest days of photography, professional photographers and amateur practitioners had already embellished monochromatic prints with hand-added color.¹ Technologies for bringing fuller color to photography have evolved continuously until today. Now, in the twenty-first century, popular digital projects have sought to overcome the “distant” or “scratchy” look of historical black-and-white photography through colorization. In each iteration, these projects seek to bring photographs “to life” by adding color, because they assume that color makes their photographs appear to be more “true to life.”² Color images of a world that we are used to seeing in black-and-white give us a jolt of recognition, but whether capturing the present or digitally altering captures of the past, photographs are always an imperfect and approximate representation of their subjects.³

The Russian chemist, journal editor, and photographer Sergei Prokudin-Gorsky (1864–1944) was a pioneering inventor who brought color to his photographic work remarkably early, at the start of the twentieth century. Prokudin-Gorsky’s photographic survey of the Russian empire, undertaken from 1909 to 1915, on the eve of war and revolution, can be read as an “expression of imperial power, a confirmation of [that empire’s] existence and a justification of its continued existence.”⁴ His photographs embodied Russia’s ever-expanding reach, while also fixing the citizens, geography, industry, and beauty of the empire, as he put it, “in natural colors.” Prokudin-Gorsky’s belief in photography’s affirmative, fixing power was fueled by the ever-growing technological imperative photography posed to picture everything. Prokudin-Gorsky’s belief in the verisimilitude of color photography, shared across time and incorporated in present-day responses to his work, shows the complexity of the project that he undertook. An ambitious project of digital restoration of his color

photographs, undertaken six decades after his work was completed, has been called a "trip in a time machine to a past rendered in color."⁵ Consideration of Prokudin-Gorsky's imperial project—and of color representation more broadly—allows us to reframe the interplay between claims of enhanced realism and the lure of nostalgia in picturing a "lost" Russian Empire today.

MAKING THE CASE FOR COLOR

By the end of the first decade of the twentieth century, print editors and photographers in Russia, western Europe, and the United States offered a variety of answers to the then-pressing question of how best to represent the world as one sees it in "natural colors." In the pages of the journal he edited, *Amateur Photographer* (*Fotograf-liubitel'*), Prokudin-Gorsky published sustained and repeated claims to the importance of working in and towards natural colors. An article published in the journal in 1909 drew this desire for color in the grandest terms:

Nature without colors would be nothing. It is impossible to imagine what the world would look like, made up of only white, gray, and black tones; in any case, such a world would have very little interest for an artist. Since the advent of photography, people recognized the inadequacies regarding the accurate reproduction of colors.⁶

This writer denies entirely the power of black-and-white photography in favor of a broadly defined use of color, but for Prokudin-Gorsky, not all colors or application of colors were equal. In the pages of *Amateur Photographer*, automatic rather than hand-added color processes were favored. One author conceded that "retouching" black-and-white photographs could be done well and "correctly," but that "photographs made over in this way cannot, strictly speaking, be considered works of color photography."⁷ For Prokudin-Gorsky, as a photographer, chemist, and color photo evangelist, the chemical process of color photography positively filled the "contents" of its subjects, while monochromatic capture could only offer shape—an outline that demanded the fullness of color. The natural world, he believed, was best served by color photography.

Prokudin-Gorsky's own color technology was not the only color process on the market in that first decade of the twentieth century. A great number of his editorial features in *Amateur Photographer* were aimed at the shortcomings of the Autochrome, a patented technology of color photography invented in France by the Lumière Brothers and available in Russia after 1907. Prokudin-Gorsky's process, however, including camera, projection, and printing, was by no means uncomplicated. To form an image in "natural color," Prokudin-Gorsky began with the exposure of three negatives on one oblong plate through three different filters in rapid succession using the automated action of the camera. The resulting three images would be seen in color when projected through a triple-lens magic lantern (akin to an early slide projector). While the three glass plates were

themselves black and white, the prism screens in red, green, and blue created the effect of natural colors. Here, in their projection onto a screen, color (made through the action of light on the screens) becomes part of the performance of viewing.

Amateur Photographer regularly featured reproductions from the editor's own color photographic enterprise. These reproductions, labeled as photographs "from nature," gave further opportunity for Prokudin-Gorsky to illustrate his color printing. Bucolic images of the Russian countryside or studio portraits were pasted onto special thick paper, set apart from the journal's black-and-white reproductions and articles. Prokudin-Gorsky describes the process of translating his photographs to the page through his mastery of "a typographical machine" using three colors and three different color plates in which the "nuances of colors, . . . a combination of blue, red and yellow dyes—testify to the faithfulness of [his] analysis of colored rays and synthesis of pigments."⁸ In making his own strong assertions to "faithful" reproduction, Prokudin-Gorsky assumes, most basically, that we see the world in "natural colors" and, secondarily, that his process can provide an approximation of the sensory experience of color as perceived—all without drawing attention to the fact that the colors captured in his photographs are an approximation of the colors as we experience them in nature. Here, we see further support for Margaret Dikovitskaia's characterization of Prokudin-Gorsky as a "positivist," stating that he "went so far as to call the human eye 'a nature-given camera.'"⁹ Prokudin-Gorsky's power lies in his ability to fix his readers' "nature-given cameras" onto those carefully curated images of Russia. No larger than a postcard, his picture of the Black River (Image 30.1), for instance, is an accessible and portable piece of the "traditional" Russian landscape. Moreover, the publication of images such as this in the journal—captioned as taken "from nature"—reinforces both appropriate choice of subject and manner of capture in this new color technology—intimating that Prokudin-Gorsky's invention provided a view identical to what we might see in life.

ARCHIVING AN EMPIRE

Prokudin-Gorsky's *Amateur Photographer* provided only part of the textual and visual argument for his colorized agenda. It was his truly remarkable survey of the empire, necessitating the personal approval of Tsar Nicholas II (himself an avid amateur photographer), that secured the photographer's legacy. The project was cut short by the outbreak of World War I and the subsequent Bolshevik Revolution, at which point many of his photographs were confiscated by Russian authorities.¹⁰ In 1918, Prokudin-Gorsky emigrated to Paris with his remaining photographic negatives, photo-proofs, and albums. In relative obscurity, the collection went largely unseen for the next fifty years. Then, his photographs reappeared in public, first in a book published in the United States and then in digital form, published by the US Library of Congress.



IMAGE 30.1 Sergei Prokudin-Gorsky, "From Nature," *Fotograf-liubitel'* (Amateur Photographer), 1906.

In 1980, Robert Allshouse published a sensational selection of the photographs.¹¹ The images reproduced for the Allshouse volume were made through a laborious process that echoed Prokudin-Gorsky's printing process. The black-and-white contact prints and the glass-plate negatives were "translated" into color separations in yellow, red (magenta), and cyan. Allshouse notes that the "required manipulation" was necessary due to the delay between each of the three automatic exposures made by the camera, from color to color. In other words, digital tweaking was needed, because the three plates each recorded a slightly different moment, leading to blurry or misaligned images in the combined product. More manipulation was required to

balance the color, and a final process in black gave the image "depth." Allshouse aptly asks, "Do the colors here accurately represent Prokudin-Gorsky's results? There is no way of telling. However, their soft, impressionistic glow is evocative of the bygone era Prokudin-Gorsky recorded, and one suspects he would be pleased."¹²

The Russian photographer and writer Vladimir Nikitin remembers his first "encounter" with the photographic collection in the late 1980s. Having heard about the book *Photographs for the Tsar*—a book that he had not yet seen—Nikitin told an incredulous friend that there had been color photography in Russia at the turn of the century. His friend, a collector, was finally able to obtain an elusive copy. Nikitin says that viewing the album for the first time "made a strange impression. There was this sensation as if something had broken in the ordinary world, as if you had suddenly seen a television report from the past. . . . [A]ll these images that were in black and white came to life in color."¹³

In the new digital age, Prokudin-Gorsky's photographs saw a "dual translation": conversion from analog to digital, and relocation to an altogether different environment—that is, the late twentieth-century American capital, rather than the prerevolutionary Russian Empire. In 1948, the US Library of Congress had purchased 1,800 of Prokudin-Gorsky's unique plates (including color and black-and-white) from the photographer's heirs. As his proprietary technology had fallen completely out of use by this time, the photographs were at first only accessible as black-and-white photo- proofs or as negatives. In the 2000s, the process of "correcting" the images in their digitized re-colorization was detailed in the American press. News articles crowed "Colors of a Lost Empire Are Reborn" and "Color Photographs of Imperial Russia Reveal a World Lost to History." At the same time, reporters lay bare the manifold problems of Prokudin-Gorsky's original image capture, including blurriness in the subjects due to plate changes.¹⁴ If his subjects moved, "they produced colored ghosts. When children posing on a hillside twitched before the camera, one girl had a blue nose, another a pink chin."¹⁵ (Look closely at the edges of the female tea workers in Image 30.2 for an example.) In the encounter with the past in the present, the process of digitizing and restoring Prokudin-Gorsky's body of work was featured in the *New York Times* in 2001 as "rebirth":

The vertical and horizontal registration problems were easily corrected by cropping the images to eliminate the areas where the negatives did not overlap. The most troublesome problems came from the fact that the plate often moved between exposures. That led to blurriness and strange color patterns when the three-color versions of a photo were recombined. Using the standard image tools in Photoshop, [the restorer] learned to adjust the images. Eventually, he was able to correct the registration to an accuracy of one pixel at the center of the images.¹⁶

But while digitization of these photographs resolved some technological challenges, it raised another, complex set of representational issues. Contemporary documentary



IMAGE 30.2 Sergei Prokudin-Gorsky, group of workers harvesting tea, Greek women in Chakva on the Black Sea.

photographer and critic Fred Ritchin has written that the “date when the digital era came to photography,” marking an end to photography as such, was 1982, just two years after the publication of Allshouse’s book on Prokudin-Gorsky.¹⁷ “It was then that *National Geographic*’s staff modified a horizontal photograph of the pyramids of Giza and made it vertical, suitable for the magazine’s February cover. They electronically moved a section of the photograph depicting one of the pyramids to a position partially behind another pyramid, rather than next to it.” In so altering the image, the magazine’s editor “opened the digital door.”¹⁸ Ritchin and his friend and fellow photographer Edouard Boubat expressed concern about manipulation of images. Their concern extended to tampering with color in particular. Boubat begged that such sacrilege not be perpetrated on the documentary sanctity of the black-and-white image, which had come to define “serious” photography in the latter half of the twentieth century.¹⁹ The

photographer and the critic understood that the digital alteration of a photograph could be easily concealed, and such doctoring could call into question the fundamental promise that photographs accurately represent the reality they depict.²⁰ Even when we know that photographs are not exact reproductions of reality, we continue to believe that they are. The temptation to believe in the authenticity of photographic evidence afflicts photographers and lay viewers alike.

Digital reconstructions of Prokudin-Gorsky's images operate like photoshopped bodies, molded to fit expectations of what color photographs of the past should be, or what we—like Prokudin-Gorsky—believe they should be. While the Library of Congress intentionally exposes the imperfections of Prokudin-Gorsky's reproduction of the world around him in its display of the processing details and irregularities, on their website they also provide the “perfected-to-a-pixel” images for use. Another recent print volume dedicated to Prokudin-Gorsky's photographs, titled *Nostalgia*, purposefully retained imperfections in its reproductions of the “original” images. The pre-digital Allshouse volume includes a publisher's note on the dust jacket:

Although great efforts were made to reproduce these remarkable photographs at the highest quality levels possible, there are imperfections visible in places. Time has taken its inevitable toll on some of the fragile glass photographic plates, causing flaws in prints. Also, the primitive techniques employed occasionally caused blurring in the original plates. Because of overriding historical interest, such factors were overlooked several times during the selection process.²¹

These variously “corrected” and curated images of a “lost past” capture what Svetlana Boym called the “ruin gaze.” This gaze is “colored by nostalgia,” the object of which “is forever elusive, and our way of making sense of this longing for home is also in constant flux.”²² This romantic appreciation for the imperfections of the photographs that confirm their location in an irretrievable past, however, coexists with a desire to revive that lost world through correcting and perfecting the images. However unstable our nostalgia and its objects may be, our fascination is still founded on a notion that these photographic images are fixed “in natural colors,” in something real.

Prokudin-Gorsky's reconstructed image archive finds its home within the flux of the colorized ruin gaze that can be framed and reframed, often under the guise of continued recovery and rediscovery. In the contemporary public sphere, we see these contradictory impulses shaping responses to Prokudin-Gorsky's photographs. With their imperfections and fuzzy edges, they are often projected as an invitation to ruminate on the “lost” imperial past, while at the same time, the language of “bringing to life” through color prompts just the opposite: an encounter with something surprisingly contemporary. As the author Nikitin framed it, seeing color photographs from a period in history when we expect only static black-and-white or sepia sparked



IMAGE 30.3 Side-by-side juxtapositions of a photograph by Sergei Prokudin-Gorsky and a contemporary capture of the same location, Bol'shoe Chertovo Gorodishche (The Great Chertovo Settlement), by "S."

a vivid personal connection with that past. The practice of recreating these photographs today (Image 30.3) is further evidence that Prokudin-Gorsky's photographs are read through the lens of our twenty-first century media sphere, because they have become part of its technological construction. Viewed from this perspective, we might lose sight of the "lost empire," but regain a closer understanding of our fascination with the drive to fill in our experience with color.

NOTES

1. On the history of color photography, see *Color Rush: American Color Photography from Stieglitz to Sherman*, edited by Katherine Bussard and Lisa Hotsteler (New York: Aperture, 2013); on early Russian photography, see Elena Barkhatova, *Russkaia svetopis': pervyi vek fotoiskusstva, 1839–1914* (St. Petersburg: Al'ians liki Rossii, 2009).
2. See "World War I—in Color" at <https://www.history.com/news/wwi-color-photos> and Peter Jackson's 2018 documentary film *They Shall Not Grow Old*. See also "Peter Jackson's Time Machine Back to the Trenches: They Shall Not Grow Old," British Film Institute, <https://www2.bfi.org.uk/news-opinion/news-bfi/features/lff-62-they-shall-not-grow-old-peter-jackson>
3. Robert H. Allshouse, *Photographs for the Tsar: The Pioneering Color Photography of Sergei Mikhailovich Prokudin-Gorsky* (New York: Dial Press, 1980), ix.
4. Estelle Blaschke, "The Russian Empire—Between Modernization and Decline," in *Nostalgia: The Russian Empire of Czar Nicholas II Captured in Color Photographs by Sergei Mikhailovich Prokudin-Gorsky*, edited by Robert Klanten (Berlin: Gestalten, 2012), ii.
5. Blaschke, "The Russian Empire," i.
6. T. Thorne Baker, "Tsvetnaia fotografija, Napisana dlia zhurn.," *Fotograf-liubitel'*, no. 5 (May, 1909): 146 (translated from English into Russian).
7. P. Shafranov, "Tsvetnaia fotografija i zhivopis'," *Fotograf-liubitel'*, no. 5 (May, 1908): 143.

8. The clearest articulation of this testament comes in Prokudin-Gorsky's account of his capture of the famous author Leo Tolstoy "in natural colors from life." Michael A. Denner, *Tolstoy Studies Website*, <http://sites.utoronto.ca/tolstoy/colorportrait.htm>
9. Margaret Dikovitskaia, "Central Asia in Early Photographs: Russian Colonial Attitudes and Visual Culture," in *Empire, Islam, and Politics in Central Eurasia*, edited by Uyama Tomohiko (Sapporo: Slavic Research Center, 2007), 102.
10. Ian Austen, "Colors of a Lost Empire Are Reborn, Digitally," *New York Times*, June 14, 2001; Robert H. Allshouse, *Photographs for the Tsar*.
11. Austen, "Colors of a Lost Empire." See also Harold Leich, "The Prokudin-Gorsky Collection of Early 20th Century Color Photographs of Russia at the Library of Congress: Unexpected Consequences of the Digitization of the Collection, 2000–2017," *Slavic & East European Information Resources* 18, no.3/4 (Fall/Winter 2017): 223–230.
12. Allshouse, *Photographs for the Tsar*, 214.
13. Vladimir Nikitin, *Rasskazy o fotografakh i fotografiakh* (Leningrad: Lenizdat, 1991), 48.
14. Quotations are taken from the titles of Ian Austen, "Colors of a Lost Empire Are Reborn, Digitally," *New York Times*, June 14, 2001, and *Smithsonian Magazine* (online), "Color Photographs of Imperial Russia Reveal a World Lost to History," March 26, 2014, <https://www.smithsonianmag.com/travel/old-russian-empire-color-photos-180950229/>
15. Pamela Kessler, "The Czar's Country, in Color," *Washington Post*, December 5, 1986.
16. Austen, "Colors of a Lost Empire." More detailed accounting of the process and the categories of reconstruction (including digital color composites and digital color renderings) are described on the Library of Congress website, <https://www.loc.gov/pictures/collection/prok/method.html#composites>
17. See also Michelle Henning, "Digital Encounters: Mythical Pasts and Electronic Presence," in *The Photographic Image in Digital Culture*, edited by Martin Lister (London and New York: Routledge, 1995), 218–219.
18. Fred Ritchin, *After Photography* (New York: W. W. Norton, 2009), 27.
19. Ritchin, *After Photography*, 27–28.
20. Henning, "Digital Encounters," 218.
21. "Publisher's Note," from Allshouse, *Photographs for the Tsar*, back jacket.
22. Svetlana Boym, "Tatlin or Ruinophilia," *Cabinet Magazine* (Winter 2007–2008), <http://www.cabinetmagazine.org/issues/28/boym2.php>