BOOK REVIEW

Michael Rossi. *The Republic of Color: Science, Perception, and the Making of Modern America*. Chicago: University of Chicago Press, 2019. 320 pp.

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Color forms and informs the world. *The Republic of Color* evokes a late nineteenth century moment in which scientists challenged the assumption of a universal reality of color, inciting a radical and enduring shift. Departing from “common sense philosophy,” for which color was ultimately a shared and public experience, “color science” arose amidst aesthetic, scientific, and industrial frenzy and spread across geographic and disciplinary boundaries. Modernizing color meant to get at its nature and cultural implications. Approaching chromatic perception as a compound of signals and symbols, whose intricate relationship remained obscure, a wide range of investigators sought to disentangle the conflation of subjective sensation and objective reality to recalibrate earlier empirical and metaphysical inquiries. For American physicist Ogden Rood, color was a “living experience” (p. 47) and the human body a crucial technical element in its perception. Fully integrating color perception into a nineteenth century mode of “kinaesthetic knowing,” he sought to explain the phenomenon as a dynamic process of psychophysical registration, cognitive translation, and aesthetic discernment. Rood’s revision

instigated a modernized inquiry into color—an objective, communal endeavor propelled by “networks of professionals” in “pursuit of fidelity to the real” (p. 53). This developmental quality of color, so the book’s claim, assumed a special instrumentality in Gilded Age America, where reformers in art, politics, industry, and science were embroiled in the pursuit to construe “a self-consciously modernizing American state” (p. 15).

Michael Rossi provides an agile reconstruction of the historical and theoretical context in which scientific investigations of color incited larger assumptions about human evolution and cultural production. In a cumulative narrative that constructs an intricate critique in seven chapters, he demonstrates an exceptional ability to weave the attitudes, scientific labor, and networks of a diverse cast into a meditative account that adds essential hues to an otherwise monochromatic representation of the making of modern America. Rossi skillfully segues from one to the other, exploiting seemingly tentative connections to illustrate the profound impact of color science across a broad spectrum from science to philosophy to medicine to pedagogy to industry. Propelled by the “semiotic” of Charles Sanders Peirce, for whom color was a sign that carried active relations to other things, color scientists conceived of their subject as an index of identity (internal) and a crucial pedagogical catalyst of subject-formation (external).

The strength of Rossi’s study emerges in its critical engagement with this indexicality, which not only aided in the dissection of chromatic confusion, but abused it for eugenic science, racial profiling, and the marginalization of the alleged “disabled.” While, as Rood and Peirce had found, the reality of color differed subjectively, easily “normalized” by cultural practice and education, “racial epidermalism” (see Catherine Keyser, *Artificial Color: Modern Food and Racial Fictions*, Oxford: Oxford University Press, 2019) and color blindness determined the social reality of subjects on the same basis. Rossi traces connections between the chromatic cultivation biases of Gilded Age America, in which ethnologists presumed an expansive color vocabulary to be indicative of the linear progression from “savagery” to “civilization,” interjecting subversive strands that sought to rectify its moral implications for the waxing Republic. Critiquing these verdicts as unethical and unscientific, the psychologist Christine Ladd-Franklin shifted her focus from color as index of human evolution to an “evolutionary theory of color” (p. 147). Social reformers took a similar moral interest, leading a widespread scramble to devise standardized color systems and diverse instruments to furnish a morally and scientifically holistic terminology. “The color question,” shows Rossi, was “a matter of commercial utility, industrial efficiency, aesthetic purity, and ethical verity” (p. 178). Reaping value from the refined methods of signification, nomenclaturists desired a physical, physiological, and psychological understanding of color that would aid in the more complete and moral translation of reality for society.

The Republic of Color is an impressive first book throughout which Rossi emerges as a gifted writer, erudite storyteller, and conscientious historian of science. His ability to navigate, in a

nuanced and elegant manner, the historical bias on race, gender, and disability that was deeply enmeshed in turn-of-the-century American color science is outstanding. Some lingering questions nevertheless remain. While Rossi lays out compelling lines of argument for this being a distinctly American story, which nonetheless draws from scientific findings in Europe throughout, one wonders at times whether brief references to the distinctness of color science and its cultivation in colonial empires such as those of France, Britain, and Germany would have made the argument even stronger.

Coincidentally emulating its subject, a recent resurgence in scholarly attention to color science has swept across geographic and disciplinary boundaries, realized as conferences, exhibitions, and publications. Entwining reflections on both the material and intellectual processes of chromatic epistemologies, research projects such as Bettina Bock von Wülfingen's, ed., *Science in Color: Visualizing Achromatic Knowledge* (Berlin: De Gruyter, 2019) thereby prod anew the methodologies of sense-based learning that similarly incited the nineteenth-century drive to modernize color. With a contemporaneous emphasis on the translatory potential of "technical images" and "cultural techniques" that bridge the sciences and arts, contributors from diverse fields in the humanities and natural sciences converge on the mediatic properties of color as a shared problem, challenging assumptions of universality or naturalness. While these lines of research seek pluralistic analyses of contexts and their synchronic as well as diachronic shifts, they often falter in their attempt to provincialize predominantly Western narratives of color. As a frequent contributor to discussions that exert stress on oppressive histories, Rossi is deservedly situated at the epicenter of scholarship that reinvigorates color with an active agency to re-form and inform the world. *The Republic of Color* leaves one with a recalibrated attention to the world past, present, and future.