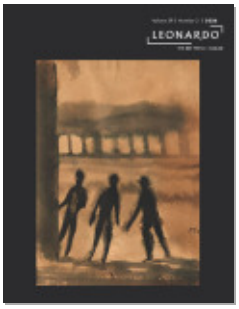
Tales of Militant Chemistry: The Film Factory in a Century of War by Alice Lovejoy (review)



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my translation), shying away from the *public* dimension of writing, that is literature as a profession, and trying to come as close as possible to the *existential* aspect of it. Literature not as a social or intellectual "posture," a way of self-fashioning within the literary field, but as a way of coping with life through and with the help of writing: Who am I, given the fact that I write instead of doing something else, and what is the connection between my life, myself, and the act of writing? Although the differences in style and tone are huge, this may be what *Le Temps de l'écrivain* has in common with, for instance, Franz Kafka's *Diaries*.

Le Temps de l'écrivain addresses these questions without any pathos (a word not to be confused with passion, the latter very present!). This is not a book about therapeutic writing, writer's block, social prestige or the lack of it in contemporary society, the anxiety of influence (all issues that are certainly hinted at, but always in the background). Instead, one finds here a sober yet passionate reflection on the fact that an individual continues to write and finds in this writing one of the keys of their life and, regardless of the strong social pressures on what writers are expected to write and to do in a world that has ceased to put literature on a pedestal, to the extent that in quite a few circles literature itself is no longer considered relevant (one certainly remembers the sobering words of C.P. Snow in this *Two Cultures* conference, where he quotes a scientist saying that books are only good to stabilize a wobbly table).

Dellisse's writing is anything but compulsive or monomaniac. A well-published and critically acclaimed author and member of the Belgian Academy, he likes to engage with all kinds of readers in all kinds of circumstances, to share his expertise with students and colleagues, and to collaborate with other artists, always in very deliberate and well-considered ways. However, in this book it is the naked fact of writing, the decision as well as the effort to transform ideas, feelings, experiences into sentences (Dellisse has fascinating things to say on the difference between words and sentences, more particularly on the danger of insisting too much on words and not enough on sentences) that is at the heart of the author's self-reflection. He does not dissimulate the often extreme loneliness of this act, permanently torn between sprint and long-distance, with never any guarantee of success. Yet the aspect he systematically foregrounds is that of *joy*: the joy of finding the right way to express thoughts and sensations, memories, projects and dreams, the joy of putting things together in order to produce an unforeseen creation that is sharper, wittier, more condensed than what we usually say, feel or think, the joy of establishing bridges between writing and other passions such as admiration, awe, love, and speed. Luc Dellisse is, among other genres, a specialist of microfiction, typically blurring the boundaries between novella and flash fiction, a feature that also characterizes most of his poetry and even his criticism of scriptwriting in cinema, where he excels in surprising yet always perfectly faithful summaries, remediating the movie intrigue into a new story. The current book equally performs this genre-bending, but here in the domain of autobiographical criticism, it is permanently attracted by the mystery of the literary epiphany and the careful need to actually construct the outburst of such an event.

Le Temps de l'écrivain is an outstanding mix of intellectual clarity and rhythm and pace of style. In these pages, the prose of Luc Dellisse progressively morphs into something other than just another study on writing by writers. It becomes a both modest and ambitious self-portrait, mirroring the life of all those who dare go to the extreme of their passion. In this regard, there is no longer a fundamental difference between those who read and those who write, a human and intellectual solidarity that the author rightfully stresses in this book.

TALES OF MILITANT CHEMISTRY: THE FILM FACTORY IN A CENTURY OF WAR

by Alice Lovejoy. University of California Press, Oakland, CA, U.S.A., 2025/2026. 256 pp., illus. Trade. ISBN: 978-0-520-40293-5.

Reviewed by Enzo Ferrara.

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It is renowned that since its invention in the late nineteenth century, totalitarian regimes have always had foresight and great regard for cinema as a means of influencing masses, both openly and more subtly, using all techniques of persuasion. Benito Mussolini defined cinematography as "the strongest weapon" to emphasize its importance as a tool for ideological control during his fascist regime. The quote used by the Italian Duce is actually from Lenin; this position was willingly adopted by the fascist and Nazi commands because of the ability of totalitarian regimes to exchange sure-to-work methods of coercion.

Likewise notorious is the lasting history of entrenchments of chemistry with war. Homeric texts mention poisonous ointments used to make arrowheads more lethal, going back to the Trojan War. In 1516, the Italian poet Ludovico Ariosto, author of the romance epic *Orlando Furioso*, wrote a remarkable passage to condemn the use of firearms, at that time newly invented and revolutionizing medieval warfare. He considered gunpowder an infernal technology that nullifies dexterity, favoring brutality and chaos in battle. Since then, warfare has witnessed an increasingly widespread and systematic use of chemical agents. These can be weapons in themselves, like Yperite (mustard gas), experimented with in trench warfare during World War I, Zyklon B gas used for the "final solution" in the Nazi camps, and napalm and Agent Orange spread in the Vietnam War. Chemicals also play a major role in preparing and servicing modern weapons of war. Examples include the key role played by the oilfields of Baku, Azerbaijan, in sustaining the victory of the Soviet army

against Germany during World War II, or the many chemical passages cast off to separate fissile nuclides and produce atomic bombs.

Alice Lovejoy has little doubt: All kinds of chemical industry are well-integrated components of modern warfare, and the film industry incorporates the worst aspects of both enrollments. The author is a media and cultural historian at the University of Minnesota; her research examines governmental and institutional media technologies; she also wrote *Army Film and the Avant Garde: Cinema and Experiment in the Czechoslovak Military* (Indiana University Press, 2015). With *Tales of Militant Chemistry*, centered on film factories, she offers an amazing perspective on the connections of the chemical sector of analogic photomedia with warfare from World War I to the nuclear era.

Focusing on enterprises that led worldwide film production from the end of the nineteenth century, and exploiting a thorough reconstruction of past events, interviews, war archives, and classified documents—the *Bibliography* and *Index* sections extend over 76 pages—Lovejoy's book shows that behind the glamor of cinema, and beyond its use as a hidden power, lay a darker truth. That synthetic world of film and fibers shared roots with the most obscene employments of technological resources in war and relied on environmental violence and colonialism from Africa to Ukraine to grab raw materials. "This is a book about film as a weapon—not in its images or sounds, but in its chemistry," Lovejoy clarifies in the Introduction (p. 2).

The text is made up of two parts. Part 1, *Building*, develops in two chapters (*The Film Factory* and *Story of a Tree*) a thoughtful historical approach to the chemical industry's technical progress, along with its political involvements in the late nineteenth and early twentieth centuries. At the heart of this story, we find America's Eastman Kodak and Germany's Agfa, two giants of photographic technology whose chemical empires were part of the machinery of violence accompanying the world conflicts and Cold War. Lovejoy presents an acute historical matching of their separated, although similar roles in the surge of economic nationalism in the United States and in Germany. Kodak and Agfa were photographic monopolies; they were also key players in militarized state economics. Their parallel histories address what emerges when industry, government, and military interests intersect, and their roles converge as part of a larger agenda based on warfare; a case study of the military-industrial complex.

The Eastman Kodak Plant of Rochester, New York, is the first location focused on by Lovejoy. Founded in 1883 by George Eastman to make cameras and plates coated with photosensitive emulsions, its destiny has mirrored the second major character of the book: the rival plant of Agfa in Wolfen, near Leipzig, East Germany—now an Industry and Film Museum. The destinies of these two factories, on the opposite sides of the Atlantic, are difficult to disentangle. In time of peace as in time of war, they made many of the same products and struggled and competed to sell them throughout the world and to make them better and faster. "AGFA began as a dye maker," Lovejoy writes:

> Its name stands for *Aktien-Gesellschaft für Anilin-Fabrication* (roughly, joint-stock company for aniline manufacturing), and aniline, made from coal tar, is the chemical basis of dyes. In the late nineteenth century, after chemists discovered that dyes could both tint fabric and sensitize photographic surfaces to light, Agfa entered the photographic business (p. 5).

Chapter 2, *Story of a Tree*, describes the involvement that brought Eastman Kodak Company in 1942 to a project that dwarfed anything it had made before: "Tennessee Eastman was a specialist in chemical engineering," Lovejoy writes, and chemical engineering "took center stage in the Manhattan Project." "Uranium was an unfamiliar material for Tennessee Eastman, she continues, but not for Kodak, which for years had used uranium nitrate, a salt, as a toner" (p. 66). It was eventually at the nearby Oak Ridge National Laboratory, which the Army Corps of Engineers established as part of the Manhattan Project, that uranium minerals collected from the infamous mines of Shinkolobwe (Katanga, Belgian Congo) were refined as basic constituents of atomic bombs by Eastman scientists and technicians, many of whom had spent their careers thinking only about film.

Lovejoy also describes the urge to continue production that dominated Kodak and Agfa plants in the middle of World War II. When the Reich was definitely defeated, she explains, Kodak raised technologically and commercially also thanks to the high-level planned seizing of the German renowned and appreciated production: "Agfa was the vanquished enemy. Its products had been pivotal to the chemistry of war, and Roosevelt, Churchill, and Stalin had agreed at Yalta to eliminate Germany's military capacity" (p. 93).

Part 2, *Unraveling,* enlarges the perspective along three chapters (*Taking Stock*, *Fallout*, and *A Fine Line*), drawing the uninterrupted although out-of-sight connections of film industry with war economy. As you leaf through these pages, the glitz and glamour of Hollywood take on a darker tone when associated with war and environmental devastation. Media technology can no longer remain considered for just its cultural contribution; it shaped modern visions by ruling reality-making while its manufacturing was inseparable from the military-industrial complex. Since cameras, film, and photographic chemicals depended on colonial mining and imperial logistics, control of their production chain was included in tactical preparations. In a period of scarcity immediately after World War II, Lovejoy highlights the high number of expert technicians sent by Kodak in occupied Germany with support from federal agencies, either to contribute to the pillage of technological goods and

expertise or to serve as propaganda officers. In both cases, film industry was a primary target.

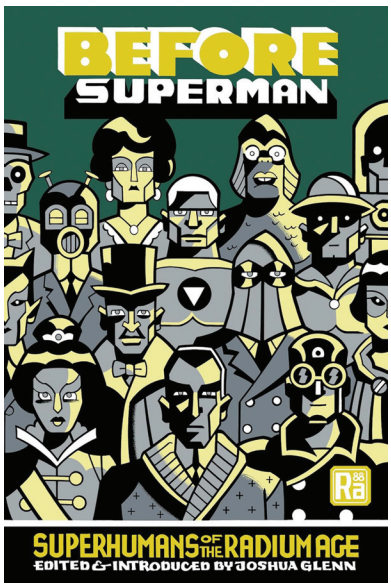
In the same chapter (*Taking Stock*), she notes how "from autumn 1945 to summer 1946, nearly thirteen million frames of microfilm were sent to Washington" (p. 111), reflecting a paranoid attitude toward recording and collecting secrets from the previously flourishing German industrial production. By focusing on the materials and chemicals that made filmmaking possible, an original and surprising perspective gradually emerges from the intertwined histories of knowledge, culture, and warfare strategies.

In chapter 4, *Fallout*, Lovejoy remarks how the sensitivity of photographic films to radionuclide emissions made them accountable as a marker of radioactive contamination. She tackles this issue, recalling the advent of a phenomenon named *black spots* or *fogging* (i.e., clear and indelible marks of nuclear radiation on photosensitive pellicles, first observed at Rochester plants in November 1951). The United States was speeding up its nuclear experiments project in response to the Soviet Union's first bomb test, which occurred earlier than analysts had anticipated. Rochester was thousands of miles away from US testing grounds in Nevada, but due to the local weather on Lake Ontario, it became a trap for atmospheric fallout from nuclear explosions. Geologists know that lake sediments are sentinels of weather changes, and radioactive marks that accumulated on the lakebed had the same chronology as those that remained on the film surface. The Atomic Energy Commission involved by Kodak to solve the issue ended in admitting that fallout was the main cause of fogging, and agreed to give the photographic industry advance warning of weapons tests—while Rochesterians were simply told not to worry.

The fogging observed on unexposed films in 1951 was among the early evidences of the Anthropocene era: "As fallout turned Kodak's factories into a *de facto* nuclear monitoring network, spots and fogging on this emulsion became markers of the atomic age" (p. 124). While a new era of development was emerging from comedies, cartoons, and documentaries worldwide developed on Kodak's product, "quietly, chemically, however, the film on which they were printed was chronicling the world that companies like Kodak helped create, a world marked by the joint upheavals of the Cold War and Anthropocene" (p. 124).

In the last chapter, "A Fine Line," Lovejoy explores how those early twentieth-century trade battles and the associated economic nationalist strategies laid the groundwork for today's industrial policy debates. A similar hard look is necessary to unravel modernity along with its heavy stuff of visual electronics, and recognize the destructive, dangerous, and cruel aspects inherent to current technologies, although based on critical chemical resources as it was for analog devices until digital prevailed. "We know well that our phones and computers and the batteries on which they run depend on metals and minerals that grow scarcer with each new machine and its planned obsolescence," she concludes. "Their extraction depends on dangerous, vastly undercompensated labor, the backbone of a global economy that is still—not unlike when Kodak and AGFA built their photographic empires—shot through with violence and inequity and inseparable from war" (p. 169).

Tales of Militant Chemistry is an unusual contribution to the history of the twentieth century. Its outcomes surpass the author's usual skills, more trained in filmmaking and providing international film critics as curator and editor. Examining the relationships with the military and the politics of the image-making industry and assessing that film's chemical plants employed the same compounds of explosives, poisons, and nuclear tools, Lovejoy reveals the film industry's dual connection to war and its surprising status as an icon of a sinful strategic enterprise, more so than many others in modernity.



BEFORE SUPERMAN: SUPERHUMANS OF THE RADIUM AGE

edited by Joshua Glenn. The MIT Press, Cambridge, MA, U.S.A., 2025. 252 pp. Paper. ISBN: 978-0-262-55307-0.

Reviewed by Jan Baetens.

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Before Superman is the latest and an intriguing volume of the highly active (no pun intended) Radium Age series edited by Joshua Glenn at MIT Press since 2022. Coined by the editor as a tribute to the discovery made by Marie and Pierre Curie in 1898, the term Radium Age refers to a long-overlooked gap in the history of science fiction, the years in between the pioneering works of authors like Jules Verne or H.G. Wells in the second half and the end of the nineteenth century and the institutionalization of SF as a new type of genre fiction in the 1930s, immediately after the decade that saw the emergence of specialized magazines such as *Amazing Stories*, edited by the "Father of Science Fiction," Hugo Gernsback.

Yet the "gap" of circa 1900–1930 is anything but a void, as shown by the richness and steady publication rhythm of the Radium Age series. The originality of the series is the result of a smart editorial policy, open to a wide range of styles, themes, and voices, yet also focusing, as in the case