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The Dawn of Technicolor, 1915–1935 by James Layton and David Pierce

Consider, dear reader, a succession of facing pages, chosen at random from The Dawn of Technicolor. First, nothing on the left side but text; on the right, more text, with two small frame enlargements from the 1922 Technicolor film The Toll of the Sea (92–93); then, spread across the upper half of both sides of the next two pages there is a trade advertisement for Toll; then, two pages of nothing but text; then, on the left of two conjoining pages, inside and outside views of Technicolor’s Boston laboratory and some of the gadgets within its walls, and on the right, nothing but text.

Not all of The Dawn of Technicolor resembles this sampling of pages, but an awful lot does. This is a book of solid historiography where the usual luxuriating in films through loving images takes a backseat to careful study with an emphasis on industry and technology (many of the pictures are of men and machines) and promotion and marketing (the trade ad material, for instance, is about selling Technicolor processes to Hollywood clients). Massive in format, and devoted to a coloring technique that is often thought of as a height of popular twentieth-century visual culture, The Dawn of Technicolor could seem at first glance to be the sort of easygoing volume, destined for the coffee table, that would trade analysis for empty adulation. But the book offers instead a very serious historiography of just the kind that Technicolor merits.

Yes, there are myriad photos, but these are always keyed to the extensive textual material. For instance, one recurrent visual motif offers half-page profiles of the main figures involved in Technicolor, providing mini-biographies with headshot photos. It is no doubt interesting to see what many of the key names actually looked like, but it must be admitted that this is not the most dazzling use of illustration. Yet that’s actually all to the good, I think. What passes often for film history in the popular domain has all too often been plagued by mere celebration or empty fandom, and Technicolor’s own sheen has the potential to wow the fan into superficial appreciation.

The Dawn of Technicolor certainly is a beautiful book, but the seriousness of analysis in its text always works to temper easy seduction, provide larger context, and explain Technicolor’s workings in rigorous yet engaging fashion. In fact, many of the photographs seem to have been chosen less for any immediate awe they might inspire than for the deeper information they impart. Thus, while there are numerous pictures of guys with gizmos, these generally instruct the reader in varying ways about the production process and the tools that were required. For instance, I found particularly revelatory a half-page black-and-white photo (222) from the Technicolor shoot for an early sound film, Under a Texas Moon (1930): specifically, the photograph amply shows two of the notorious booths, during the first years of the talkies, into which cameras had to be sequestered and confirms just how claustrophobic those so-called “ice boxes” were.

Given that The Dawn of Technicolor centers on early Technicolor technologies prior to the emergence of the lauded three-strip process that emerged by the mid-1930s, even those random frame enlargements that dot the book have an argumentative purpose as much as a visually dazzling one. That is, they not only show off the aesthetics of early Technicolor but also show how it looked different from the achieved and industry-accepted standard that would come with three-strip. Thus, readers do not merely read that two-strip Technicolor couldn’t reproduce the full gamut of color, but get directly to
see that limitation in images reproduced from this or that film. Most strongly, for example, two frame enlargements (262), rich with reddish-yellow and a bit of green but little else, from the Warner Brothers two-strip Technicolor film Doctor X (1932) strikingly confirm how far color reproduction had come by that point but also how far it had still to go.

The book offers, then, a highly effective approach to the story of Technicolor and also, in terms of the history that’s been available until now, a necessary one. Working through the extensive deposit at the George Eastman House of corporate materials from the Technicolor company, authors James Layton and David Pierce, both film historians and archivists, concentrate usefully, and with great depth and detail, on the development of the Technicolor process, ending their narrative at the moment that the three-color version, the one that has been preserved in memories of films from the mid-1930s on, is finalized and feature film production with it begins.

Providing the story of the Technicolor process before its perfection is valuable for several reasons. For instance, while there has been important scholarly work on Technicolor, most of it has centered on the ultimate, most famous iteration so as to examine its aesthetics in its achieved form: most notable is Scott Higgins’s breakthrough and now-canonic Harnessing the Technicolor Rainbow: Color Design in the 1930s (University of Texas Press, 2007). Higgins pretty much starts his narrative where Layton and Pierce leave off, and his emphasis falls most often on the ways that three-color Technicolor enabled filmmakers in the studio system to craft an impressive range of dramatically as well as visually impressive effects within storytelling cinema. Higgins’s study is that of a technique at its best, while Layton and Pierce concentrate often on the fumblings and failings along the way to classic accomplishment.

In so doing, the authors do not merely shift the focus of historical study. By looking at the corporate archives, they also provide an important corrective to the historical record and fundamentally rewrite the standard account from scratch. In fact, a dominant account of early Technicolor history has long been available in the form of company founder Herbert Kalmus’s promotional autobiography, whose title and front-cover blurb tell it all: Mr. Technicolor: The Fascinating Story of the Genius Who Invented Technicolor and Forever Changed the History of Cinema (MagicImage Filmbooks, 1993). Admittedly, Kalmus’s vanity project was published posthumously, with some sections contributed by surviving family, so not all the puffery came from him alone. But whatever its history, Mr. Technicolor is a tendentious work that often fails at real and accurate chronicle.

Instead of unexamined hagiography, Layton and Pierce move beyond the single life (although they of course acknowledge Herbert Kalmus’s undeniable contributions when appropriate) to the corporation of Technicolor men who worked on the techniques and technologies of Technicolor as well as on its marketing to the ever-burgeoning Hollywood film industry. In this mission, these men were assisted by a few women whose stories Layton and Pierce also tell, most notably—or notoriously—Natalie Kalmus, who was once married to Herbert but remained powerfully within the company after their divorce and who, in her capacity as credited Technicolor advisor to the studios, would try to impose her aesthetic biases—such as a subordination of the demonstrative play of color to the supposed needs of narrative sobriety and clarity—onto the mass of feature films made with the process.

The Dawn of Technicolor belongs to both technology studies and political economy of large-scale industry. Here, all those mini-biographies of Technicolor personnel (along with behind-the-scenes brokers and financiers) come into play to provide a rich image of the company and the intricate steps on its path to profitability. And “steps” is the operative word here: as Layton and Pierce’s careful account amply clarifies, the Technicolor company’s guiding principle was to develop its color processes incrementally, rather than shoot for perfection all at once. For instance, while company scientists knew that three-color reproduction had to be their ultimate goal (anything short of that wouldn’t capture the full range of primaries or complementaries in the visual field), and while they even worked on prototype technologies toward that goal from the very start of their operations, they also knew the limitations of the technology as it was shaping up and also the resistance that they would encounter when convincing Hollywood to pay for a complex innovative system. Their dominant strategy was to be responsive to the imperfections of the technology along the way, working on what was most possible to achieve at any moment, and equally to the fact that incremental developments might be more marketable to Hollywood businessmen who were often resistant to radical and wholesale technological change.

Layton and Pierce carefully dissect each and every one of the steps, both the technical invention and refinement required and how these were promoted to the studios. And at each stage, the authors are attuned to internal resistance as well as external. Thus, not everyone within the Technicolor
company was on the same page as to scientific procedure and marketing strategy. In this respect, some of the best parts of *The Dawn of Technicolor* dissect the scientific as well as ideological divisions entailed when the Technicolor company opened a Los Angeles plant to be closer to the studios but found that the engineers who had remained back at the original facilities in Boston were often at odds with Hollywood-centered decisions and procedures. For instance, the West Coasters continued to use a doomed method of cementing strips, each in a different dominant color, together—in large part because they knew their clients, the film studios, preferred conservatively to stick with the tried-and-true (even though the strips would often separate during projection and throw off focus)—while the East Coasters knew that single strip film that imbibed all the colors (and thereby eschewed cementing and thereby avoided separation) had to be the future even as every present experiment with it was failing to meet Hollywood’s reigning standards.

Layton and Pierce tell a tale that is rich in intricacies but never lose sight of the bigger picture, nor do they ever let the details turn their account into something dry. In fact, the book is replete with engaging anecdotes that also contribute to the overall rigor of argument. For example, it’s always been known that Technicolor processes needed much more illumination on the set (and outdoors as well) to compensate for loss of light from filters, prisms, added emulsion, and so on, but, through the recounting of vivid incidents, Layton and Pierce manage to make vibrant the challenge filmmakers faced. Most striking, perhaps, is the case of one Warner Brothers film, *Sally* (1929). When the temperature on the set started to approach 140 degrees, raising fears of spontaneous combustion of the wood construction—which was thought to be possible starting around 165 degrees—gigantic fans were brought in and holes even cut into the roof of the building to let in air, while the rumor circulated that the studio bosses’ response to the threat of fire was to disable alarms and sprinklers and let things continue so as to not lose shooting time!

Confirming its promise for scholarly research, *The Dawn of Technicolor* ends with a filmography running over a hundred pages of all two-color Technicolor films, whether fully produced or abandoned in early stages, with plot summaries, detailing of print availability and archival holdings, production background, and so on. Clearly, this is a book to be read and studied with deep attentiveness and to be built upon in further historiography. *The Dawn of Technicolor* deserves to be on the bookshelf of any scholar of American film, although its very size may destine it to end up on that infamous coffee table in the living room where, one imagines, it will nonetheless stand out insofar as it stands for much more than glossy celebration.

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**NAJMEH MORADIYAN RIZI**

New Voices in Arab Cinema by Roy Armes

For regions like the Middle East and North Africa that have rich historical cultures and have faced many political and social upheavals (wars, foreign invasions, domestic uprisings), cinema has been a medium through which each successive generation has expressed its ideas of freedom and equality, cherished the nostalgic past, and hoped for a better future. Roy Armes’s latest book, *New Voices in Arab Cinema*, provides a panoramic overview of the cinematic works of the contemporary generation of Arab filmmakers who have used cinema as a way of exploring their cultural memory, national identity, and political history. Armes concentrates in particular on those Arab filmmakers who were born in the 1960s and who made their cinematic breakthrough in the 2000s.

Although he acknowledges the steady force of Egyptian cinema, providing some insight into the works of contemporary Egyptian filmmakers, Armes mainly focuses on the cinemas of seven Arab countries—Algeria, Morocco, and Tunis in the Maghreb and Lebanon, Palestine, Iraq, and Syria in the Middle East. His principal inquiry concerns “art house Arab cinema” (3), a cinema in which the filmmaker in question is considered an auteur and his or her cinematic vision is mostly coherent in their film practices. These shared affinities include: “European/US education and film training, foreign (mostly French) co-production funding, and in many cases, expatriate, usually European, residence” (1).

In the book’s first chapters, “Characteristics of the New Cinema” and “The Filmmakers,” Armes argues that in the films of young Arab filmmakers the issues concerning the modern Arab world such as women’s roles in society, freedom of expression, and critical and sociopolitical discourses are often interwoven with progressive attitudes articulated in