Lea Jacobs, *Film Rhythm after Sound: Technology, Music, and Performance* (Oakland: University of California Press, 2015), 280 pp., $34.95 (paperback),
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Reviewed by **Dominic Topp**

An alternative title for Lea Jacobs's *Film Rhythm after Sound* might be *In Search of Lost Timing*. Through several detailed case studies, Jacobs explores how classical Hollywood filmmakers adapted to the introduction of synchronized sound, trying to regain the ability they had developed in the silent era to regulate and vary the pace at which narrative events unfolded on the screen from moment to moment. Looking at several trends within the cinema of the early to mid-1930s, the book examines a range of strategies that filmmakers developed to combine sound and image so as to create "a rhythmically coherent blend of sound and image" (23). In doing so, it offers a compelling account of stylistic change as a process of adaptation and experimentation by creative artists, and provides an innovative model of fine-grained analysis that should serve as an inspiration to other scholars of the history of film style.

The book's introduction surveys the restrictions that filmmakers faced with the switchover to sound and particularly with the establishment of speech as a dominant element. Here, Jacobs emphasizes how problems with recording and editing dialogue negatively affected filmmakers' efforts to control the rhythm and pace of scenes. Before the invention of the microphone boom gave sound recordists the ability to follow the action, performers' movement around the set was limited, and concerns that the microphone would not pick up dialogue encouraged actors to speak slowly, enunciating every word so as to ensure audibility. In addition, editing tempo was at the mercy of the actors' line readings, and editors

lost much of the freedom that they had had in the silent cinema to tighten the pace of a scene in postproduction by trimming shots. The result of these limitations was the static "canned theater" style of many early sound films, with lengthy scenes of dialogue delivered at a monotonous, plodding pace.

Before beginning her exploration of how North American filmmakers went about retrieving rhythm, Jacobs moves away from Hollywood to spend Chapter 2 explaining her methodology via an analysis of sound–image relations in a scene from Sergei Eisenstein's *Ivan the Terrible, Part I* (1944), which was made in collaboration with the composer Sergei Prokofiev. While the jump to 1940s Soviet cinema is initially a little confusing, this chapter allows Jacobs to clarify the concept of film rhythm and to propose means of quantifying it in the absence of the fixed units of measurement that exist in music. She draws on Eisenstein's theorizing of his own film practice to suggest that rhythm results not from any single temporal element of film style (e.g., shot duration), but from the relationship between a number of stylistic parameters: dialogue, sound effects, music, figure movement, camera movement, and editing rate. In production and postproduction, these can be organized in a variety of ways, both as they succeed each other and as they relate to each other at any given moment (what Eisenstein termed "vertical montage"). One element can be aligned with another, as when speech or physical action is synchronized with a melody or rhythm, or elements can be alternated, as when the soundtrack switches between snatches of dialogue and short musical passages. Multiple elements can be layered on top of each other, producing a dense audiovisual texture and a fast tempo, or the audiovisual mix can be pared down to highlight a single element, yielding a sparser texture and a slower pace. And the filmmaker can shift from one pattern of organization to another, linking these to the different narrative phases of a scene or to a change from one scene to the next.

Jacobs is able to measure these stylistic interactions by feeding a scene into a nonlinear editing system, allowing her to observe the relative position of visual and sonic accents and to note points of convergence and disjuncture. She can thus chart in detail the rhythmic development of the *Ivan* scene, reverse-engineering Eisenstein's and Prokofiev's creative choices to show, for example, how a dramatic high point is underlined by a shift from continuity to discontinuity, first synchronizing music, dialogue, movement, and editing, and then disrupting this audiovisual harmony with an overlapping cut that skewers the other elements "like a toothpick piercing a sandwich" (52).

Having established the parameters of film rhythm, over the next three chapters Jacobs examines various approaches to coordinating their relationship taken by Hollywood filmmakers of the transition period. Chapter 3 focuses on the early sound cartoons of the Walt Disney studio, which were able to sidestep some of the problems of live-action films by minimizing the use of dialogue. Jacobs emphasizes that the close collaboration between director and composer was central here. Rather than conceiving of music as an accompaniment to the image track, sound animation was understood from the start as a synthesis of music, audio effects, and onscreen action. Preproduction involved the preparation of "bar sheets" and "exposure sheets," charts laying out the precise relationship between sound and image tracks down to the individual frame and note. Jacobs's analysis of Disney cartoons finds a variety in their blending of melody and movement that goes beyond the strict synchronization between onscreen action and musical tempo ("mickey mousing") for which they have often been disparaged. Studying cartoons produced from 1929 to 1934, she shows that animators developed a number of techniques to avoid rhythmic monotony. Although characters' actions were frequently constructed in cycles of movement that repeat in time with the music, in early examples such as *Hell's Bells* (Ub Iwerks, 1929) the in-house convention of animating at a tempo of twelve frames per beat provided a flexible standard

against which actions could be animated at different rates while remaining in sync, thus allowing different characters to move in different ways. But animators gradually moved away from this "precise slicing and dicing of the beat" (69). *Three Little Pigs* (Burt Gillett, 1933) switches between song-based passages and faster-paced chase sections in which movement is no longer tied to every beat, although important onscreen actions are emphasized by syncing them to a strong musical accent. *Playful Pluto* (Burt Gillett, 1934) structures its soundtrack not around songs or extended melodies but around sound effects and shorter musical passages with frequent changes in rhythm. It also includes some movement that is independent of musical meter and varies the number of frames per beat so that the tempo slows down and speeds up as the narrative progresses.

A similar trajectory from precise synchronization to a more diverse approach to coordinating rhythmic elements is traced in Chapter 4, which returns to live-action filmmaking to look at how the early operetta musicals of Ernst Lubitsch and Rouben Mamoulian structured figure movement and dialogue delivery in relation to their scores. Jacobs starts by surveying the different methods of creating musical numbers that were available for these films. Certain songs in *One Hour with You* (Lubitsch, 1932) and *Love Me Tonight* (Mamoulian, 1932) were direct-recorded in the multiple-camera mode, with offscreen orchestras providing live accompaniment to Maurice Chevalier's singing. But what appears in a finished film as a single audiovisual event could also be the product of a synthesis of elements, with sound postsynchronized to picture once a scene was filmed and edited, or action filmed sync-to-playback, so that actors matched their performance to a prerecorded music track.

Mixing these different recording processes allowed filmmakers to achieve a greater freedom and precision in the construction and staging of scenes and in the coordination of the elements that contribute to an overall sense of rhythm. Sound and image could be tightly

synchronized, as when the score's tempo was matched to camera and figure movement in postproduction. Or a comic counterpoint could be produced by accelerating the cutting rate and the speed of onscreen action while the music maintained a slow pace. Jacobs also finds a more flexible style developing that looks forward to the convention of underscoring, in which dialogue is no longer dependent on musical rhythm and melodic phrases respond to the rhythm of line readings as much as the other way around.

Chapter 5 traces the evolution of Howard Hawks's approach to the problem of how to impart rhythm to sound cinema without the support of a score. Jacobs concentrates on three films from the first half of the 1930s that show Hawks employing a range of strategies for pacing his films. In *The Dawn Patrol* (1930), a theatrical adaptation mostly shot with the multiple-camera method, he breaks up long dialogue scenes by cutting between adjacent spatial zones, and creates sonic variety (and a dense soundscape) by shifting audio elements such as conversation and diegetic music from background to foreground and back again. He also works to overcome the canned theater effect by having some actors speak in short, punchy fragments instead of the carefully enunciated sentences that were the norm, and by inserting shots taken "wild" (without sound) across which the recorded dialogue could be overlaid, giving his editor more freedom to cut around within the scenic space. Hawks moves further away from the theatrical style in *Scarface* (1932), using an episodic structure that condenses narrative action through montage sequences and drastically reduces the length of individual scenes. He also continues his work on the tempo of dialogue delivery, varying the speed at which different actors speak to create rhythmic contrasts that aid characterization. And over the course of a scene, he moves from one dominant rhythmic parameter to another, alternating a section based around dialogue with one centered on physical movement or rapid editing.

The chapter's most in-depth analysis is devoted to Hawks's classic screwball comedy *Twentieth Century* (1934). Jacobs argues that it is here that Hawks (aided by improvements in sound recording and editing technology) achieves his goal of defining "a coherent rhythm for dialogue scenes in extramusical terms" (165). One well-known example of Hawks's precise control of dialogue delivery is his fondness for overlapping dialogue. Jacobs's research shows that the claims for Hawks's originality here are exaggerated, since actors Alfred Lunt and Lynn Fontanne had been doing something similar on stage since the 1920s, with unsuccessful attempts to replicate their style in early sound films by several directors. Jacobs's analysis reveals that Hawks's actors limit their overlaps to a few frames (the length of a syllable or a mere phoneme) to ensure audibility. More significant for the overall sense of rhythm is how the actors' vocal delivery (including changes in speed, volume, and intonation) is integrated with aspects of their physical performance, from small gestures (which can combine with line reading to stress an important word) to larger movements (which can signal the transition from one phase of a scene to the next), all of this supported by framing and editing. The director becomes the conductor of a "word score" (216), collaborating with his performers and technicians on set and with his editors in postproduction to construct a scene's rhythmic flow, speeding up and slowing down the pace by attending to the moment-to-moment coordination of multiple stylistic elements.

A topic running throughout *Film Rhythm after Sound* that will be of interest to readers of *Projections* is the psychology of tempo. Despite her application of quantitative methods (carefully measuring shot lengths, frames per beat, and words per second), Jacobs is clear that our sense of timing is relative rather than absolute. A not particularly fast passage can feel quite quick when juxtaposed with a slower one, so a filmmaker who wants to arrive at a rapid climax should start a scene with long takes, limited movement and/or unhurried line readings before picking up the pace. She is also careful to note that the interplay between stylistic

elements that she so precisely monitors needs to be understood in the context of overall narrative structure. As well as the "tiny bits of time" (220) that she (quoting James Stewart) takes for her main subject, our perception of a film's tempo is affected by how quickly it shifts from scene to scene and how much story information individual scenes present us with.

By sensitizing us to the rhythmic ingredients that the filmmakers she discusses worked with, Jacobs invites us to rewatch their films with a greater appreciation for the artistry involved in coordinating music, dialogue, and movement into an audiovisual whole. That Hollywood filmmakers continue to "think sync" can be seen (and heard) in the recent case of *Baby Driver* (2017), for which director Edgar Wright and sound designer Julian Slater "tempo-mapped" each of their song choices, breaking them down into bars and beats so that sound effects and onscreen action could be synchronized to music, and actors were issued with earpieces so they could time their movements and dialogue delivery to the relevant song (Marshall 2017). In fact, Jacobs's methods could be fruitfully applied to a wide range of filmmaking traditions, from the martial-arts movies of Taiwan and Hong Kong to the slow cinema of Theo Angelopoulos and Béla Tarr. Her book is not just a significant contribution to the history of classical Hollywood cinema, but a broader reminder of what Michel Chion calls the "transsensoriality" (1994: 137) of the film experience. As such, it is recommended to anyone who is interested in breaking down the wall that has often been erected between sound and image in the study of cinematic style.

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