

Sounding Images in Silent Film: Visual Acoustics in Murnau's *Sunrise*

by Melinda Szaloky

*Silent cinema has an acoustic dimension that originates in the image and can be materialized through its plastic compositions. The twofold aim of this essay is to weigh several theories about how spectators comprehend "visual sounds" and to illustrate the masterful use of visual acoustics in F. W. Murnau's *Sunrise* (1927).*

The cinematic appeal to the auditory imagination is a new possibility of poetic expression, which no serious photoplaywright can afford to neglect. "High-brow" critics and apologists for the spoken drama have been known to sneer at the *silent* drama. Let the cinema composer [i.e., director] attune their ears to the sounding beauties of that silence. Let him create of this nothingness a new form of expression, until stillness becomes eloquent and the unheard melodies sweet.

Victor Oscar Freeburg, *The Art of Photoplay Making* (1918)

Until recently, no one disputed the truism that "silent cinema was never silent." The sounds of the silents have been conceived of as something external, an accompaniment to the visual universe of the film. Rick Altman's claim that "silence was in fact a regular practice of silent film exhibition" appears, for the first time, to challenge the historical accuracy of the received opinion that "the silent film never existed." Altman's persuasive argument, however, leaves untouched the basic assumption that the sounds of the silents were generated by *extrafilmic* sources during the film's exhibition in order to provide an acoustic accompaniment to the *inherently* silent images (through music, noise effects, strategic silence, and oral narration).¹ Thus, the silence of silent cinema has been contested insofar as the conditions of its exhibition were concerned (which may or may not have included an external acoustic accompaniment) and has very seldom been questioned in relation to the medium *per se*. After all, it seems counterintuitive to regard a film with no soundtrack as anything other than representative of an exclusively visual, soundless medium. Nevertheless, this reasoning is mistaken.

It is instructive to recall that the term "silent film" came to denote early cinema only after the coming of sound had turned presound films into "silents." As Michel Chion notes, "The spectators and critics of 1925 didn't talk of going to see

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a mute film or silent film any more than we say we're going to see a talkie or sound film today."² Rudolf Arnheim's view that "silence is not necessarily experienced as the removal of the world of sound"³ was shared by numerous early filmmakers and theorists who celebrated the purely pictorial nature of the new medium as a novel, idiosyncratic, and thereby artistic means to represent reality. Hugo Münsterberg calls the photoplay "a work of art which is composed of pictures" and urges "the creation of plays which *speak the language* of pictures only."⁴ For Victor Freeburg, the strong appeal of the "suggestive silence" of motion pictures to the "auditory imagination" constitutes "a new possibility of poetic expression which no serious photoplaywright can afford to neglect."⁵ V. I. Pudovkin praises the "specific talent" that enables a film director "to find the correct and vivid images expressing the quintessential element of each given idea." In Pudovkin's view, it is this peculiar form of representation, this *difference* between the natural event and its pictorial appearance on the screen, that makes film an art.⁶

For the theorists mentioned above, the photoplay's lack of a synchronized soundtrack provided the potential for art since it prompted the new medium to transpose the most telling characteristics of an audible occurrence into something visual. Arnheim's example of portraying the firing of a revolver through the image of a flock of birds suddenly rising calls to mind Lotte Eisner's descriptions of F. W. Murnau's elaborate cinematic experiments "to make sound perceptible through the power of the images."⁷ In my view, these instances—including Münsterberg's use of a sonic metaphor to characterize silent film (which, he opines, should "speak the language of pictures only")—point to an acoustic dimension of the silent cinema that has been insufficiently recognized, one that does not originate from extrafilmic sound effects but, instead, issues from the images themselves.

It is this acoustic dimension of the images of "silent" cinema that I will attempt to explicate. Although my claim may echo the old truism that "silent cinema was never silent," I will not be concerned with the extra-cinematic sound that was (or was not) added to the images during exhibition. Instead, I will argue that silent cinema was never silent because it was never meant to represent a mute world addressed to deaf spectators; nor did spectators understand it as such. By means of a refined and conventionalized visual language, silent films have managed to tell intricate stories to cross-cultural, multilingual audiences.

As Béla Balázs reminds us, the paraphrasing of all sense perceptions through vision is possible only insofar as the spectator contributes "an association of ideas, a synthesis of consciousness and imagination."⁸ This suggests that the hidden acoustic dimension of silent cinema should be sought in the spectator's head—as much as in the "sounding" images—and indicates the usefulness of theories of perception and cognition to our understanding of cinematic reception. I will illustrate my theoretical discussion with a close "acoustic" analysis of F. W. Murnau's *Sunrise* (1927) as well as with other instances of visible and visualized sound in Murnau's work.

"There Never Was a Silent Film." As Altman notes, there has been a spectacular upsurge of interest in sound in the silent cinema: "Most scholars dwell almost exclusively on music; some concentrate on the lecturer; others approach the question

through exhibition and theater architecture; still others are brought to silent film sound by a more general interest in cinema sound."⁹ In spite of their collective merits, however, Altman considers these new studies reductionist since they unanimously (and uncritically) accept the received wisdom that silent cinema was never silent.

The consensus among film scholars in this regard is remarkable indeed. "We know that silent cinema was never actually silent," Norman King claims. In his view, the fact that the great picture palaces had permanent orchestras proves that music formed an integral part of the cinema experience.¹⁰ "We know that the so-called silent period of the cinema was rich in varied experiments in the use of . . . sound effects, words, and music," André Gaudreault asserts. For Gaudreault, the essential difference between the sound of the silents and that of the talkies lies in the fact that the former "was not recorded but produced on the spot in an on-off performance."¹¹ Charles Musser writes: "It may be asking too much to call the 'silent cinema' by some other name, but it is not too much to remember [that] early cinema screenings were anything but silent."¹² Musser's comment is significant because it draws attention to the *two* possible silences of the silents constituted by, on the one hand, the films' physical lack of a soundtrack (which defined them as unassailably silent) and, on the other hand, the circumstances of their exhibition (which, until Altman's claim to the contrary, have been generally considered as nonsilent).

The ambiguity of the term "silent cinema" enables us to offer three alternative readings of Irving Thalberg's motto "There never was a *silent* film."¹³ First, we may see in it (as does Rick Altman) the corroboration of a pervasive acoustic accompaniment in silent-film exhibition. Second, we may understand the statement to be an expression of Thalberg's aggressive rhetoric aimed at promoting the sound film as the only conceivable filmic mode by declaring that the imperfect silent film did not deserve to be called film. Third, we may consider the silence of the silent film from the standpoint of the medium itself where the medium is defined not in terms of its material technology but as a representational practice directed toward reception by spectators. Were silent films populated by deaf and mute characters who moved about in a soundless space? Did spectators believe that silent films told stories of voiceless people in a soundless world? This was hardly the case. Arnheim's explanation is illuminating and worth citing at length:

No one who went unprejudiced to watch a silent film missed the noises which would have been heard if the same events had been taking place in real life. No one missed the sound of walking feet, nor the rustling of leaves, nor the ticking of a clock. The lack of such sounds (speech, of course, is also one of them) was hardly ever apparent, although they would have been missed with a desperate shock in real life. People took the silence of the movies for granted because they never quite lost the feeling that what they saw was after all only pictures. This feeling alone, however, would not be sufficient to prevent the lack of sound being felt as an unpleasant violation of an illusion. That this did not happen is again connected with what was explained above: that in order to get a full impression it is not necessary for it to be complete in the naturalistic sense. All kinds of things may be left out which would be present in real life, so long as what is shown contains the essentials.¹⁴

How did films lacking an audible soundtrack manage to create a "full impression" of the lived world, complete with acoustic sensations? Arnheim's argument suggests that both the composition of the images on the screen (their portrayal of the "essentials") and the spectator's activities of comprehension were instrumental in supplying the physically absent acoustic dimension of presound cinema. Before turning to the hearing of silent sounds, I will consider the sounding features of "silent" cinematic images.

Early aestheticians of the cinema regarded the exclusively pictorial nature of the medium as a unique opportunity to represent the world in an unusual, unexpected, and unfamiliar (that is, artistic) way that promised to provide insight and value. The transposition of *narratively significant* acoustic (and other sensory) phenomena into a visual language was considered one of the prominent forms of such an artistic practice.

Obviously, not *all* sounds required elaborate visual representation. As an early critic of silent cinema acutely remarks, "When an average patron sees a dog on the screen he knows it is a dog without a succession of 'bow-wows.'"¹⁵ The reason, Christian Metz would say, is that culture (and our thinking about, and acting in, the world) depends on the permanence of *visual* objects. Thus, sound is seldom, if ever, defined by its own aural characteristics but rather is understood as an attribute, an acoustic accompaniment, of the visible source that emits it. (This explains the term "offscreen sound," which in actuality refers to the spatial location of the *source* of the sound rather than the sound itself.¹⁶) The sound of walking feet, the rustling of leaves, or the ticking of a clock mentioned by Arnheim are clearly such *visible* sounds. No one would miss hearing them since they are seldom given narrative significance as acoustic phenomena—and, thus, they do not qualify as "essentials" in Arnheim's sense of the word. Yet these sounds are silently present in the filmic story (and in the spectator's conception of it) through the *image* of the concrete source that they are invariably associated with in real life.

It was this sense of the implicit representability of many sounds through their visible source objects that prompted such formalist film aestheticians as Eisenstein, Balázs, Arnheim, and Pudovkin to strongly advocate a contrapuntal and asynchronous use of sound in the incipient sound film. Balázs's statement sums up his peers' views: "The demand is that the sound film should not merely contribute sound to the silent film and thus make it even more like nature, but that it should approach the reality of life from a totally different angle and open up a new treasure-house of human experience."¹⁷ In other words, simply adding sound to an image that already implied such sound was taken to be a pointless use of the new possibilities of sound film. As Arnheim observes, "Such a '*double sound track*' will make [artistic] sense only if the components do not simply convey the same thing."¹⁸ These aestheticians recognized the potential of sound to be meaningful in its own right, instead of serving as a mere attribute of the visual images.

Although the significance of visual objects in life, and in film, is pervasive, it is by no means exclusive. Nonvisual (i.e., acoustic and to a lesser extent tactile, gustatory, and olfactory) "essentials" (to use Arnheim's term again) may be rendered visible in silent films by stylistic means, typically by editing, close-ups, and camera

movements, as well as by the choreography of the actors' gestures. It is precisely this representational "surplus" that makes film an art in the eyes of most theorists of the early cinema. What I will call *visualized* sound is the pictorial rendering of *narratively significant* acoustic phenomena, a kind of acoustic close-up that, like the close-up in general, serves to guide and organize spectatorial attention and to help the viewer comprehend the story. Thus, the image of a flock of birds rising prompted by the report of a gun can emphasize a gunshot with specific narrative or metaphorical significance, whereas a simple image of a gun might convey only *visible*, "inessential" sound. Likewise, a crowd of rhythmically swaying bodies can signify the unifying and pacifying force of music. If we can believe Arnheim, this indirect method of representation (what I have called *visualization*) not only clearly illustrates the highlighted acoustic event or phenomenon but also intensifies, shapes, and interprets it by virtue of the "paraphrase."¹⁹ What now remains to be examined is what makes it possible to convert acoustic sensations into visual images. Why and how do we hear sound that is only visible and visualized?

Listening to Unheard Sounds. One way to account for the apprehension of "silent" sounds is through the notion of synaesthesia. The term has been used, somewhat confusingly, to refer both to metaphoric (and artistic) associations and to spontaneous physical sensations. Synaesthesia has been keenly explored by artists through the ages, most notably by the French symbolists (e.g., Baudelaire and Rimbaud), as well as by modernist painters and composers.²⁰ What makes possible the description of one kind of sense perception in terms of another—that is, a metaphoric paraphrase of one sensation through another—is, no doubt, that most of these percepts are heavily laden with culture-specific connotations. (It is, indeed, the ingrained connections and encrusted meanings that novel and distinctive uses of style—e.g., synaesthesia—aim to dismantle.) Although physically inaudible, the "lilac-purple song" performed by a tie at daybreak in a metropolitan shop window (as described by Hungarian poet Árpád Tóth²¹) will be "heard" by the poet and his reader by virtue of his or her previous experiences concerning this particular (visible) hue. This metaphorical aspect of synaesthesia implies an inner hearing that, independent of immediate physical stimuli, relies on memory, imagination, and inference-making on the basis of lived experiences.

Neuropsychology, in its turn, defines synaesthesia as an "*involuntary experience* in which the stimulation of one sense cause[s] a perception in another."²² Richard Cytowic, an expert on clinical synaesthesia, emphasizes that synaesthetes actually perceive parallel sensations through the stimulation of a single sense modality; they do not speak in metaphor when, for instance, they call high musical notes pink and low ones blue. In other words, genuine involuntary synaesthetic perceptions are based on cross-modal sensory associations that bypass semantic meaning and—much like artistic visions—present the world in a novel, nonhabitual guise.²³ However, since clinical synaesthesia is a rare medical condition rather than a general human faculty (only ten people in a million are synaesthetes), it cannot feasibly account for an average moviegoer's "hearing" of visually cued and physically absent sounds. Synaesthesia may still be relevant, though, if, as Cytowic believes, it

is in fact a routine (though nonconscious) brain function that we all possess.²⁴ If so, a person may experience some visual sounds *without* the mediation of language. This suggests that there may exist sounding film images that affect the spectator without first going through a verbal translation.

Synaesthesia is also a key concept in existential phenomenology. Maurice Merleau-Ponty explains:

The sight of sounds or the hearing of colors come about in the same way as the unity of the gaze through the two eyes: in so far as my body is, not a collection of adjacent organs, but a synergic system. . . . When I say that I see a sound, I mean that I echo the vibration of the sound with my whole sensory being. . . . My body is a ready-made system of equivalents and transpositions from one sense to another. The senses translate each other without any need of an interpreter, and are mutually comprehensible without the intervention of any idea.²⁵

For Merleau-Ponty, synaesthesia is a routine "synergic" confluence of the senses, through which the body effortlessly converts diverse sensations into one another without the mediation of conscious thoughts (e.g., memory, imagination, fantasy, and expectations). A fundamental modality of our sensory experience, synaesthesia provides us with "an embodied intelligence," as Vivian Sobchack puts it, "that opens our eyes far beyond their discrete capacity for vision." Therefore, the cinema spectator is, in Sobchack's formulation, a "cinesthetic subject" who feels and comprehends the film with her or his entire bodily being and whose "carnal thinking" makes each film extend far beyond its "visible containment by the screen."²⁶ This appears to imply that a film with no soundtrack is never merely a visual experience (but also an auditory one, among others) since our senses fluidly transmute from one to the other as a result of their synaesthetic cross-modality. Nevertheless, the holistic view held by existential phenomenology (which assumes the inseparability of body, mind, perception, and cognition within a "whole sensory being," as well as the synergic confluence of all senses) does not favor the separate treatment of a particular sense modality—in our case, the "inner hearing" of silent sounds (i.e., sounds lacking physicality).

The notion of the translatability of sense perceptions into each other is reflected in Dominique Nasta's claim that the essence of the sound/image duality lies not in opposition but in identity. Although Nasta acknowledges the capacity of silent film to "suggest, imply, and imitate sound" through subliminal perception (also referred to as mental hearing or subception),²⁷ she does not elaborate on *how* mental hearing functions. Her discussion of the effects of synaesthetic perception is limited to the audio-visual complex of the *sound* film (that is, film accompanied by audible sound) in which, she believes, conventions exist that bring together visually and acoustically cued meanings based on the translatability of certain acoustic and visual percepts into one another.²⁸ A series of "grave" (i.e., slow and solemn) sounds, she argues, is perceived in the same manner as a dark-colored scene, whereas "sharp sounds correspond to light colors and height variations to changes in luminosity."

Image and music, Nasta asserts, are also comparable through the essence of editing, which has the same function in both, namely, that "[a] series of juxtaposed

shots or scenes may acquire inner coherence through the use of background music which provides correlatives from previous scenes."²⁹ This echoes Balázs's remark that the silent film "was given a voice in the background music" since the common musical background made landscapes, men, and objects "speak a common silent language."³⁰

In sum, Nasta's synaesthetic understanding of the audio-visual complex of a film appears to be biased toward external (i.e., physically present) acoustic stimuli that are *synchronous* with the spectator's comprehension of a largely pictorial world on the screen. (In this regard, it is worth noting that Sergei Eisenstein's and Abel Gance's synaesthetic experiments to express images in terms of music and vice versa were also connected to an audible musical score.³¹) Instead of focusing on the *mental hearing of visually perceptible* sounds—which is our objective here—these synaesthetic experiments appear to be concerned with the *visualization of actually audible* sounds (largely music). Furthermore, they treat only phenomena that exist together in the same (brief) time frame. (In contrast, as I will argue shortly, some forms of mental hearing are indirect and detached from the immediate temporality of viewing time.) Similarly, existential phenomenology (as developed by Merleau-Ponty) considers the phenomenon of synaesthesia in the context of actual, cotemporal sense perceptions, which, in turn, are subsumed under the act of *viewing*—a fundamental "address of the eye."³² This makes the phenomenological notion of synaesthesia *synoptic*, that is, ocularcentric.

We must ask, then, how sound can escape the confines of a world dominated by sight (through visual images as well as an ocularcentric language) and be considered a form of information independent from its source object. Edward Branigan argues that "language, human biology, and the physics of the middle world [i.e., the world described by Newtonian mechanics] converge to frame an initial condition for the perception of sound: its measurement against distant, lighted objects." Nevertheless, Branigan believes, sound may acquire its equality with vision "when it is indirectly perceived . . . by being fixed within a context that is larger than identifying and locating objects in space."³³ Branigan posits two broad ways of perceiving sound in film (which are analogous to our perception of sound in real-life situations):

Some perceptual processes operate upon data from the loudspeakers (and data appearing on the screen) primarily in a direct, "bottom-up" manner by examining the data in very brief periods of time . . . and organizing it automatically into such features as aural pitch, loudness, edge, depth, motion, size, shape, color, texture, and so on. Bottom-up perception is serial and "data-driven" and produces only "short-range" effects. . . . Other perceptual processes, however, based on acquired knowledge, memory, and schemas (frames, scripts), are not constrained by stimulus time, and work primarily "top-down" on the data using a spectator's expectations and goals as principles of organization. . . . For example, one prominent top-down goal for organizing data in a film is the creation of a "narrative," or story world; other goals may involve states of reasoning, imagination, desire, intention, anticipation, recall, hypothesis, search, and making the future (un)predictable.³⁴

According to this view, perception is simultaneously direct and indirect—the former being based on the processing of external stimuli and the latter on the use of (task-driven) schemas. Cognitive schemas are mental structures that contain specially

organized "chunks" of knowledge distilled from interpretations of past experience. Schemas operate by providing a graded set of expectations in a given domain and are used to recognize, fill in, predict, and classify new sensory data. Given that a diversity of bottom-up and top-down processes are at work every moment during perception, cognition, Branigan claims, can be "best thought of as a system which struggles to manage incomplete, ambiguous, deceptive, and often conflicting interpretations of data." Consequently, "Watching a film . . . might better be described as watching many films at once; and hearing a sound as hearing many sounds"³⁵—even such sounds that are not heard "bottom up" but that are created "top down" through the use of schemata. Christian Metz appears to voice a similar idea when he states that the "first viewing" of a film would not even be a viewing without an entire body of previous cultural knowledge already present in one's immediate perception.³⁶

It would seem that this dual mode of perceptual and cognitive processing offers a productive way to readdress the issue of how visualized silent sounds are listened to, heard, and made significant. Because top-down (or schema-driven) processes are active in watching a film, sound need not be limited to its existence as a bottom-up percept tied to an actual acoustic stimulus. Nor should it always play second fiddle to light and vision, given that a spectator's goals, expectations, and projections (which govern the top-down mode of perception) may be other than recognizing or verifying the physical shape, material, identity, and whereabouts of an object. "Sound achieves its equality when it is taken as a form of *knowledge* rather than taken as a state of the real world," Branigan writes, and he posits narrative discourse as one of the contexts in which sound may attain independent epistemological significance.³⁷

Following this reasoning, Fellini's view (quoted by Nasta) that "the audience need not hear too many *unimportant* noises as most of them are *inferred* through every person's mental hearing" can be taken to summarize the principle of the top-down apprehension of (what I called) *visible* sound (diegetically present through its source object but irrelevant for the narrative).³⁸ Consider also the *Philadelphia Inquirer's* report of a 1904 showing of *The Great Train Robbery* (quoted by Rick Altman to illustrate his point about the silence of the silents): "There is a great amount of shooting. The smoke of the pistols is plainly seen, and men drop dead right and left, but no sound is heard. Nevertheless, while witnessing the exhibition women put their fingers to their ears to shut out the noise of the firing."³⁹ Clearly, what is described here is an instance of top-down (i.e., inferred) "hearing" of narratively significant *visualized* sound, which in silent film is foregrounded by the distinctive use of pictorial style—in this case by the smoke of the pistols and the many who "drop dead."⁴⁰ In what follows, I will investigate how the plastic elements of a film may be molded to articulate sound in silent film in a way that is crucial for the narrative.

Sound as "Visual Surplus" in Murnau's *Sunrise*. "Despite the fact that *Sunrise* is a silent film, the average person enjoys it as a fascinating story told with honesty and sincerity," Dorothy Jones writes in her seminal essay on Murnau's cinematic

masterpiece, which, she asserts, "is told almost entirely visually"—with the exception of a few subtitles.⁴¹ Interestingly, Jones ignores the fact that *Sunrise* was released with a synchronized (and masterfully compiled) music and effects track.⁴² Jones's absentmindedness is not surprising; it is symptomatic of the longstanding view (voiced as early as 1916 by Münsterberg⁴³) that silent cinema, a purely visual medium, derives its *artistic* potential by telling stories through exclusively visual means. Murnau's reputed, oft-quoted desire to do away with all intertitles and to acquire "a camera that can move freely in space"⁴⁴ appears to state the credo of an artist devoted to this very goal.

To render an *acoustic* analysis of the *visual* masterpiece *Sunrise*, I take my cue from Dudley Andrew, who insightfully notes that "our own interest in [this] film is held by its refusal to succumb completely to any one experience or interpretation of it." Andrew adopts Paul Ricoeur's view that the very greatest works carry a "surplus" besides their ordinary message and invite us, through their "surplus," to engage in repeated encounters with them. To respond to a "surplus," Andrew warns, "is to put comfortable explanations in jeopardy and to regard that mark as alive, as capable not simply of repeating its message but of ushering in new significance without warning."⁴⁵ Following this reasoning, Andrew offers a significant proposition: "The surplus of meaning which overruns the banks of *Sunrise's* traditional narrative is first of all a *visual surplus*."⁴⁶ In fact, much of the "visual surplus" in *Sunrise* is generated by Murnau's conscious effort to convey important *sound effects* (and also, to a lesser extent, other sense perceptions) through a distinctive use of plastic elements.

Lotte Eisner's pivotal book on Murnau contains numerous references to the director's experiments with "sounding" images. While making his early, now-lost film *Der Januskopf* (1920), Murnau was already aware of "the *visual* effect of sound," since he suggested a close-up of a bell ringing—a device that was also used in *Tartuffe* (1925) and *Sunrise*.⁴⁷ It was this awareness that prompted the invention of a great many of Murnau's daring camera movements, one of which is the legendary flight in *The Last Laugh* (1924) of the camera through the air to represent the sound of a trumpet traveling from source to receiver. Eisner quotes Robert Baberske, an assistant cameraman for several of Murnau's films, who talks about Murnau's wish "to translate an aural effect into an image" by showing that the sound of the trumpet is "heard 'visually' by Jannings."⁴⁸

Murnau's penciled notes on the script for *Faust* (1926) indicate yet another pictorial composition destined to stand in for a powerful sonic instance, Gretchen's desperate, larger-than-life cry: "Big picture of Gretchen crying out. The wild cry across the chaotic landscapes. Ranges of mountains split open to the left; behind them boiling waves. Above all these images hovers a ghostly image of Gretchen's face, tortured by woe."⁴⁹ In *Tartuffe*, Eisner notes, "we seem to hear the rustle of a silken dress as we see its reflecting surface."⁵⁰

Finally, with unparalleled acuity, Eisner senses the existence of a pervasive acoustic dimension in *Sunrise*. "Although this is a silent film," she writes, "*sound becomes perceptible everywhere through the power of the images* and the eloquence and precision of the acting." And also: "This film, in which each image



Figure 1. The City Woman looks into the camera and “clandestinely” purses up her lips to whistle in *Sunrise* (F. W. Murnau, 1927). Courtesy Twentieth Century Fox Home Entertainment.

speaks and each face reflects its innermost thoughts, had no need for subtitles.”⁵¹ Eisner, who was familiar with Carl Mayer’s original script for *Sunrise*, must have been well aware of the diversity of sound effects that figured explicitly on almost every page.

Sunrise, the opening title tells us, is a “song of the Man and his Wife” that can be heard “anywhere anytime.”⁵² Remarkably, the tune that disrupts the harmony of the couple is the whistle of the City Woman—who has come to the village from the city for a summer vacation and lingers. The camera follows her casual, care-free stroll from her lodgings to a nearby cottage, reframing and centering her several times, perhaps to heed Mayer’s description: “The City Woman, leaving cottage. Always *self-centered* and coquettish.”⁵³ Finally, she stops and looks into the camera, which, following Mayer’s script, shows her “clandestinely pursing up her lips. Whistling softly toward the house.” Clearly, Mayer’s instructions plot out two different discourses: that of the diegesis—where the City Woman whistles “clandestinely” and “softly”—and that of the camera—which wants to foreground (visualize) the meaningfulness of the City Woman’s acoustic signal through a frontal medium shot (Fig. 1).

The next shot shows the interior of a room occupied by the Man (the Wife is absent), who is seen slowly turning his head toward the window as if to acknowledge receipt of the sonic invitation from outside (Fig. 2). As we see him hearing her whistle, we also know that he now knows the City Woman is out there waiting for him. A cut back to the City Woman shows her whistle once again, in response to which the Man inside rises to his feet from beside the table where he was seated. His tentative move toward the window is arrested by the appearance of his Wife, who enters the screen space from the unfathomable depth of the background. Thus, the Man is caught and torn between two spaces, each inhabited by a woman. The inside beckons with its comfortable domesticity; the outside calls (quite literally so), tendering the promise of a strange and forbidden passion. Predictably, the Man follows the call of the wild.

Our analysis of visual acoustics enables us to revisit one of the most discussed camera moves in the history of cinema: the tracking shot that accompanies the Man through fog and mist to his secret rendezvous with the City Woman in the marshes. In Robin Wood's view, the shot is designed to undermine our sense of spatial orientation. Furthermore, he writes:



Figure 2. The Man turns his head toward the window as if to acknowledge hearing the City Woman's whistle from outside. Courtesy Twentieth Century Fox Home Entertainment.

Its effect is a perfect balancing of objective and subjective. Through the camera-eye we *watch* the man until he leaves the frame and when he reappears, and when we think that the shot has become subjective we are proven mistaken, which has an immediately distancing effect. On the other hand, our increasing physical disorientation during the shot communicates very directly the spiritual disorientation of the man; like us, he has lost his sense of direction.⁵⁴

In contrast, Dudley Andrew considers this complex camera movement a graphic rather than a dramatic device that serves to “animate and prolong” the composition (as opposed to furthering the narrative) and to secure Murnau’s reputation as an “‘aesthetic,’ high-art director.”⁵⁵ Having meticulously described the shot (including the City Woman’s sudden turn to the left before she starts to retouch her makeup), Jean-André Fieschi concludes that the true meaning of this dazzling cinematic maneuver is the “radical autonomization of the camera in relation to the scene.” No longer a filter or an instrument of transmission, the camera in *Sunrise* “is one of the poles of the representation; a privileged pole; a point of view within the narrative, of the narrative as it evolves, capable of decision and anticipation.”⁵⁶ I agree with Fieschi that the tracking shot in the marshes is endowed with a specific narrative function; however, it is more complex and subtle than the spatial disorientation of the spectator or the subjectivization of the male character’s state of emotional upheaval, as Wood suggests.

Let us reexamine the camera’s trajectory, starting from the moment when it parts company with the Man and hurries to the clearing to reveal the City Woman waiting in the moonlight. Andrew claims that the camera is driven by spectatorial desire to reach and see the vamp before the Man does. In my view, instead of objectifying this female character, the camera’s hasty arrival at the clearing serves to reinforce the spectator’s first impression of her (gained through sound) as an independent, active, and determined *subject*. Fieschi notes that the City Woman’s head is suddenly turned to the left as she stands there waiting. Dorothy Jones goes a step further when describing the same moment: “As she [the City Woman] *hears* the man approaching, she hurriedly powders her nose.”⁵⁷

The entire shot gains a new perspective if we accept that the camera leaves the Man behind in order to represent the City Woman’s *acoustic point of view* (or “point of audition”—to use a less occularcentric term) since this allows the spectator access to *her* subjectivity and level of knowledge, reinforcing *her* mastery of the situation.⁵⁸ In this sense, the tracking shot is a direct continuation of the one that seamlessly followed the City Woman to the Man’s cottage and showed her whistling the sound of her desire, now echoed back to her in the guise of the sounding footsteps of the approaching Man. The camera rushes to the clearing in order to capture the City Woman’s moment of victory, brought to her *through her hearing the effect* of her whistle. This time we see *her* acknowledge the sound (by hastily applying makeup in anticipation of the impending rendezvous), and we now know that she knows for certain that her call did not fall on deaf ears.

After his passionate encounter with the City Woman (who besides seducing him with her fierce dance performed to the sensuous rhythmic beat of a visual, fantasy jazz band⁵⁹ has also claimed his soul by convincing him to murder his wife,



Figure 3. The Wife senses the Man's dark mood in *Sunrise* but agrees to go for a boat ride with him. This long shot reveals the great distance between the landing and the house. Courtesy Twentieth Century Fox Home Entertainment.

sell his farm, and follow her to the City), the Man returns to his house inert and guilt-ridden. The Wife senses his dark mood but nevertheless happily agrees to go for a boat ride with him in hope of a reconciliation (Fig. 3).

Murnau's masterful build-up of the almost unbearable, preclimactic tension of the scene preceding the death ride is achieved by virtue of a series of visualized sound effects all centered around the unusual behavior of the couple's dog. Again, this episode has attracted much critical attention for its significance to the narrative and the stunning pictorial composition of the images.

Andrew attributes the growing tension to Murnau's conscious use of diagonals throughout the entire sequence.⁶⁰ Wood, in turn, emphasizes the scene's "beautifully controlled movement of emotional tension, resolution, and reversal." He associates the dog with nature and with the security of the home, suggesting that the dog's barking is an attempt to warn the Wife of the impending threat on her life. Wood also notes that the man hears the dog bark and "responds with obvious guilt."⁶¹ Evidently, the continuous barking of the dog introduces a pronounced acoustic element to the scene; however, the "visual surplus," which serves to convey "sound and fury" here, is by no means restricted to a simple shot-reverse shot exchange between dog and man.



Figure 4. This medium shot of a barking dog in *Sunrise* is situated along the same diagonal and faces the same direction as the Man, thus suggesting that the dog barks at him. Courtesy Twentieth Century Fox Home Entertainment.

A high-angle stationary camera shows the Man from behind, walking along a diagonal line from bottom left to top right, as he reaches the lake. The camera then cuts to a medium shot of a violently barking dog (the spectator cannot miss the sound here!) that is situated in the image along the same diagonal and facing the same direction as the Man, immediately suggesting that the dog barks at him (Fig. 4).

The next shot returns to the Man, who is feverishly trying to hide bulrushes in the bow of the boat until, suddenly, he turns his drawn face toward the camera. He looks intently in the direction where the previous shots have established the location of the house. Could he have heard his wife approaching, or was it the voice of his guilty conscience that alerted him to her presence nearby? At this point, both interpretations are conceivable, and indeed the following image—which appears to render his point of view—shows the Wife closing the garden gate behind her and proceeding toward the lake. However, a long shot taken from behind the boat reveals, for the first time, that the house is much farther from the dock than the spectator could infer on the basis of the fragmentary spatial relations established through previous images. Now, in retrospect, we tend to believe that it was an

inner voice that alerted the Man to the approach of his wife—as he could hardly have heard her exit the house from such a far distance (Fig. 3). (Nor could he have seen her from such a close view, as his alleged point of view suggested—which we now read as a false point of view.) Murnau's plastic craftsmanship has made audible—by visualization—a doubly silent voice: that of the (silent) conscience of a guilt-ridden man in a silent cinema. The Man's furtive look, which he turns in the direction of the dog's continued fierce barking (shown now in a close-up to convey the intensity of the sound—and not, as one would be tempted to believe, the Man's point of view), bespeaks this inner voice (Fig. 5).

The Wife also turns her head for a brief moment, presumably prompted by the loud barking, though it does not seem to greatly concern her. It is only the unexpected splash of the dog jumping into the water that alerts her to the eeriness of the situation. In quick succession, Murnau first shows the dog break its leash and clear the gate. Then he cuts to a long shot, taken from the bow of the boat, that shows the boat moving away from the landing in the background, where the running dog suddenly appears. The Wife sits in the stern facing the camera, while the Man rows the boat with his back to the camera (Fig. 6).



Figure 5. The Man's furtive look, which he turns in the direction of the dog's continued barking, bespeaks an inner voice. Courtesy Twentieth Century Fox Home Entertainment.



Figure 6. The Wife sits in the stern facing the camera, while the Man rows the boat with his back to the camera, when the running dog suddenly appears. Courtesy Twentieth Century Fox Home Entertainment.

Robin Wood argues that this pictorial composition is necessitated by the dog's "release," which achieves its full effect by "Murnau's preservation of physical space within the frame."⁶² Instead, this composition in fact foregrounds the Wife's *hearing* the splash behind her, which takes her utterly unaware, making her turn around abruptly (Fig. 7). Her sudden move alerts the spectator to the sound made by the dog's dive into the water, which was visible before it became visualized and accentuated by the Wife's clearly discernible *reaction* to it. Like an acoustic exclamation point, the splash calls the Wife's attention to the dog's strange behavior and fills her with a sense of unease. Her face reveals her oscillation between anxiety and trust as she waits for her husband to return to the boat after taking the dog ashore. Ultimately, the Wife's fears seem to gain the upper hand and it is only the Man's prompt reappearance that stops her from leaving the boat.

Thus, the "dog episode," heavy with forebodings of the fateful boat ride, achieves its near-climactic effect through a series of visualized sounds that alert the spectator to the disparity between the main characters' intentions, knowledge, and emotional states. Murnau is fully aware of the special affinity between acoustic



Figure 7. Murnau foregrounds the Wife's *hearing* the splash behind her, which takes her utterly unaware, making her turn around abruptly. The splash calls the Wife's attention to the dog's strange behavior and fills her with a sense of unease. Courtesy Twentieth Century Fox Home Entertainment.

phenomena and emotive human states, and it is his versatile use of sound effects filtered through the characters' perceptions that enables him to create the awesome psychological depth for which *Sunrise* has received acclaim.

Visible sounds (i.e., sounds that are unmistakably implied by their source objects) are often explicitly visualized in order to make them more conspicuous and to suggest other meanings beside the obvious, that a certain sound has been produced by a certain object. These visualized sounds do not always elicit a reaction from the characters, who are, for a variety of reasons, momentarily oblivious to the outside world. For example, overwhelmed by pangs of guilt and grief after the attempted murder, the Man and the Wife do not hear the tram conductor's impatient, repeated knocks on the glass door of the tram. Later, purged through suffering and reunited by forgiveness, love, and the strength of their marriage vows (which is underscored by a close-up of a pair of vigorously peeling church bells), the lovers lose touch with the world around them, retreating into a fantasy meadow.

The couple's ecstasy (i.e., state of standing outside themselves) is made palpable by their failure to react to a series of disturbingly loud noises that are, moreover, overtly aimed at awakening them from their reverie. (No one will miss the deafening honk of the car horn, which is shown repeatedly in close-up, complete with the hand impatiently squeezing it.⁶³ The shrill sound is further underscored by a synchronized sound effect.) A similar bout of surreal happiness descends upon the couple in the Luna Park scene, in which their enjoyment of sweet music played by fantasy fiddlers soaring in the air is ended abruptly by the sharp scratching noise of a waiter's pencil, who with a sudden brisk and decisive movement of his hand underlines the sum on the check that he now wants paid. In all these cases, Murnau visualizes the couple's commingled inner hearing (and deafness to outside sounds) in order to let the spectator see, hear, and feel their shared emotional experience.

Finally, brief mention needs to be made of the powerful acoustic dimension of the climax and the dénouement of *Sunrise*, which has been noted by several critics. Dudley Andrew observes that the wind that whips up the storm is "unframed and unframable"—like sound itself. This is a scene in which vision and the frame that contains it are utterly overpowered by a fathomless roar, that of an enraged Nature. Here, light has no power over sound, not even after the howl of the storm has retreated into a deathly silence. Andrew's description of the search sequence conveys this disorientation and emptiness:

This scene with its complex molecular movement, its indecipherable composition, and its context of a black surrounding lake seems aimless. These boats go nowhere. These searching light beams cannot penetrate the lake below. The pathetic husband tests all perimeters. Once he even calls out along the frontal axis directly to us, the spectators. Is there any space that will yield up his wife?⁶⁴

The Man's only hope is to find his wife through sound, but his desperate calls are drowned in the all-engulfing silence. He seems to carry the weight of this void on his shoulders as he staggers into the room, collapsing in front of his wife's bed.⁶⁵ In this deafening (inner) silence, he fails to hear the whistle of the City Woman, who has come to call him to her. Eventually, however, he reacts with guilt and horror to her repeated sonic signal: the only sound returned to him in answer to his heart-rending pleas for a life sign from his wife. In the City Woman's whistle, the Man hears echoes of the voice of his own guilty conscience. Thus, his instinctual attempt to strangle her is, in fact, an act of self-annihilation and can be halted only by the Real Voice, who carries the good news of the Wife's miraculous rescue. Murnau represents the Man's gradual awakening to this voice by cutting back three times to the shouting Maid, each time showing a closer view of her face until the image is of no more than her face and open mouth. It is the sound of the Maid's voice that brings illumination for the Man and allows the sun to rise for him again. The celestial white light engulfing the couple in the final shot of the film appears as a mere ornament compared to the radiance of this sound which has brought back life, which animates the very air.

Conclusion. That silent cinema is inherently silent (because it does not have a soundtrack) has been an assumption which once called into question has yielded an unexpected dimension: the acoustic! This essay has followed a dual path to examine sound in "silent" film. First, I have sought to explain how the spectator is able to perceive acoustic phenomena that are cued by visual images instead of by audible external stimuli. Besides theories of synaesthesia, the bimodal perceptual model of cognitive psychology might be usefully applied to account for the spectator's ability to quickly make inferences about missing sensory information by drawing on her or his previous experiences. In the "middle world" that is ruled by concrete objects (elementary and superficial but powerful), knowledge is firmly tied to vision, and because many sounds are identified by the sight of their source, "silent" movies are able to tell pictorial stories that will be understood by the spectator. This has led to the second key aspect of this study, which concerns the representational techniques used in silent film to highlight acoustic phenomena, in other words, the aesthetics of visualized sound.

Several theorists of the early cinema note the artistic potential of (silent) film to represent sound by plastic means. Because some sounds are automatically present on the screen (although unnoticed and thus unheard by the spectator) through their source objects, it is useful to draw a distinction between these *visible* sounds and the ones that become *visualized* and accentuated by the distinctive use of a pictorial cinematic device (typically close-ups, camera movements, editing, and the gestures of actors). These visualized sounds convey narratively significant information and may, if used with mastery, supply a "surplus" of meaning to the aesthetic experience of a film.

Much of the inexhaustible aesthetic appeal of Murnau's *Sunrise*, which has been called "the most beautiful film in the world" (by *Cahiers du Cinéma* in 1958⁶⁶), comes from the stunning plastic compositions of images that are molded to tell a story (also) in sounds. Every significant moment in the narrative is expressed acoustically, starting from the whistled call of the temptress (which is heard and answered) through the telltale barking of the dog, the noises heard and unheard by the Man and the Wife (which illustrate their complex subjective experiences, first separate, then increasingly commingled), the all-engulfing roar of the storm, which leaves a deafening empty silence in its wake, the unanswered call of the Man for his Wife, the temptress's second whistle, and, finally, the voice announcing the good news of the miraculous rescue. Many of Murnau's complex camera movements and shot compositions serve to render such crucial sounds audible for the characters and visible (and thus audible) for the spectator. By showing us what the characters hear, or do not hear, Murnau lets us know what they feel (and, perhaps, what we should feel). It is this desire of his camera to follow the flight of sound in order to express character subjectivity that in large measure accounts for the dynamism of Murnau's imagery. The camera movement that continually tests the boundaries of the frame invokes and evokes the moving sound that cannot be framed.

Notes

I am greatly indebted to Dudley Andrew, Janet Bergstrom, Edward Branigan, Vivian Sobchack, and Charles Wolfe, who have generously contributed many insightful comments to this paper.

1. Rick Altman, "The Silence of the Silents," *Musical Quarterly* 80, no. 4 (1997): 649, 657. A recent anthology on sound in early cinema contains several intriguing discussions on the *visual* representation (and understanding) of narratively significant sound effects in "silent" film. See the essays by Isabelle Raynauld, Bernard Perron, John Fullerton, Dominique Nasta, and François Jost in Richard Abel and Rick Altman, eds., *The Sounds of Early Cinema* (Bloomington: Indiana University Press, 2001).
2. In Michel Chion's view, early spectators knew but "forgot" that they were watching silent (or mute) films. The reason for this is that silent cinema (or "deaf" cinema as Chion prefers to call it) "made spectators imagine the voice, far from denying or mourning its demise." Since they are implied, voices in silent film are "dreamed" by the spectator. Chion, *The Voice in the Cinema*, ed. and trans. Claudia Gorbman (New York: Columbia University Press, 1999 [1982]), 7, 8.
3. Rudolf Arnheim, *Film as Art* (Berkeley: University of California Press, 1957), 210.
4. Hugo Münsterberg, *The Film: A Psychological Study—The Silent Photoplay in 1916* (New York: Dover, 1970 [1916]), 89, 86; emphasis added.
5. In an early book-length study of the photoplay (published only two years after Münsterberg's pioneering work), Victor Oscar Freeburg discusses the artistic potential of the "silence of the screen drama." Since, he believes, our "auditory imagination" is especially responsive to figures that are in motion, moving cinematic images are particularly appealing to our faculty to imagine sounds. It is the skill of the director (whom Freeburg evocatively calls the "cinema composer") that determines how well (or poorly) spectators are able to imagine "the unheard but palpably significant" sounds of a film. Freeburg, *The Art of Photoplay Making* (New York: Macmillan, 1918), 99–103.
6. V. I. Pudovkin, *Film Technique and Film Acting*, trans. and ed. Ivor Montagu (Grove Press, 1958), 130, 86.
7. Lotte H. Eisner, *Murnau* (Berkeley: University of California Press, 1973), 181.
8. Béla Balázs, *Theory of the Film: Character and Growth of a New Art*, trans. Edith Bone (New York: Dover, 1970), 53.
9. Altman, "The Silence of the Silents," 650–51.
10. Norman King, "The Sound of the Silents," *Screen* 25, no. 3 (May–June 1984): 2.
11. André Gaudreault, "Showing and Telling: Image and Word in Early Cinema," in Thomas Elsaesser, ed., *Early Cinema: Space, Frame, Narrative* (London: British Film Institute Publishing, 1990), 274.
12. Charles Musser (with Carol Nelson), *High-Class Moving Pictures: Lyman H. Howe and the Forgotten Era of Traveling Exhibition, 1880–1920* (Princeton: Princeton University Press, 1991), 280. Musser and Nelson are quoted in Altman, "The Silence of the Silents," 658.
13. Thalberg is quoted by Altman, who in turn quotes Paul F. Boller, Jr. See Altman, "The Silence of the Silents," 657.
14. Arnheim, *Film as Art*, 33.
15. Emmett Campbell Hall (from 1911) is quoted in Altman, "The Silence of the Silents," 687.
16. Christian Metz, "Aural Objects," in Elisabeth Weis and John Belton, eds., *Film Sound: Theory and Practice* (New York: Columbia University Press, 1985), 156, 157.

17. Balázs, *Theory of the Film*, 197.
18. Arnheim, *Film as Art*, 215–16; emphasis added. Arnheim's inspired phrase "double sound track" clearly indicates that, for Arnheim, the visual imagery of a silent film came equipped with a "sound track" (through the 'sounding' quality of the images). Thus, the addition of physically audible sound resulted in a "double sound track."
19. Ibid., 107–9. See also Balázs's example of Conrad Veidt's Paganini as the wizard fiddler who frees himself from prison by the enchanting power of the music he plays. Balázs, *Theory of the Film*, 200–01.
20. E. H. Gombrich offers an insightful treatment of synaesthesia in art in *Art and Illusion: A Study in the Psychology of Pictorial Representation*, 2d ed. (Princeton: Princeton University Press, 1961), 366–76. On artistic uses of synaesthesia, see Richard E. Cytowic, M.D., *The Man Who Tasted Shapes* (Cambridge: MIT Press, 1998 [1993]), 54–58.
21. Árpád Tóth, "Körúti hajnal" ("Dawn on the Ring Road"). The original poem and its English translation can be found in Péter Dávidházi, Győző Ferencz, László Kúnos, and Szabolcs Várady, eds., *The Lost Rider: A Bilingual Anthology* (Budapest: Corvina Books, 1997), 240–41. Unfortunately, the translator, George Szirtes, eliminates the synaesthesia ("lila dal," i.e., "lilac-purple song" in the original) in order to keep the rhyming pattern of Tóth's poem.
22. Cytowic, *The Man Who Tasted Shapes*, 52. According to the *New York Times*, recent research by American and Australian psychologists confirms that synaesthesia may indeed be independent of learned associations and may be a genuine perceptual phenomenon. Although the causes of synaesthesia are still unknown, there is evidence that specific brain regions are cross-wired. Since these regions of the brain process information about different sense perceptions, cross-wiring may result in the activation of a sense modality (e.g., color, taste) that has not been directly stimulated. This suggests that poets, writers, and painters, who appear to be particularly gifted at connecting disparate percepts and concepts, may have especially dense wiring across adjacent brain regions (e.g., color perception and hearing). However, as the article emphasizes, life experiences continue to play an important role in artistic uses of synaesthesia. Sandra Blakeslee, "A Reason We Call Our Cheddar 'Sharp' and Shirts 'Loud,'" *New York Times*, April 10, 2001, F5.
23. Cytowic, *The Man Who Tasted Shapes*, 108, 116.
24. Ibid., 166, 167. Cytowic suggests that synaesthesia may not be "an isolated quirk" but, rather, an ability that everyone possesses. Cytowic calls synaesthesia "an ability to understand something directly without knowing how you understand it." Cytowic, *The Man Who Tasted Shapes*, 116.
25. Merleau-Ponty is quoted in Vivian Sobchack, *The Address of the Eye: A Phenomenology of Film Experience* (Princeton: Princeton University Press, 1992), 77–78. Sobchack brings up synaesthesia in this work but focuses on the relationship between visual image and touch.
26. Vivian Sobchack, "What My Fingers Knew: The Cinesthetic Subject, or Vision in the Flesh," in Vivian Sobchack, *Carnal Thoughts: Bodies, Texts, Scenes, and Screens* (University of California Press, forthcoming). A shorter version of the essay has been published as "What My Fingers Knew: The Cinesthetic Subject and Vision in the Flesh," *Senses of Cinema* 5 (April 2000) [on-line journal]: <http://www.sensesofcinema.com.au>.
27. Dominique Nasta, *Meaning in Film: Relevant Structures in Soundtrack and Narrative* (New York: Peter Lang, 1991), 43, 90.
28. In a recent essay, Nasta discusses "visualized sound" (i.e., sound implied through plastic means) in early silent film. See Dominique Nasta, "Setting the Pace of a Heartbeat:

- The Use of Sound Elements in European Melodramas before 1915," in Abel and Altman, *The Sounds of Early Cinema*, 95–109.
29. Nasta, *Meaning in Film*, 44.
 30. Balázs, *Theory of the Film*, 206.
 31. Eisenstein singles out movement as the "natural language" that allows the plastic and tonal elements of a film to "find complete fusion." He puts theory to practice when he demonstrates how the music Prokofiev composed for *Aleksander Nevsky* (1939) was built to produce a "congruence of the movement of the music with the movement of the visual contour." Sergei Eisenstein, *The Film Sense*, trans. and ed. Jay Leyda (New York: Harcourt, Brace & World, 1942), 175–216. See also Eisenstein's discussion of synaesthesia on 82–83. Other, earlier essays by Eisenstein also treat these issues. A similar experiment was conducted in Abel Gance's *La Roue* (1922), although here it was the images that were composed according to a musical score. Norman King argues that for Gance—who believed that cinema had to equate itself with music and become "a visual orchestra"—"music was not *simply* an analogy, it was . . . a determinant of the image, providing a basis for tonality, movement within the frame and cutting between frames, even though in this instance the 'source' of the music is not present in the image." See King, "The Sound of the Silents," 6–8.
 32. The phrase "address of the eye" is borrowed from, and is a reference to, the title of Vivian Sobchack's *The Address of the Eye: A Phenomenology of Film Experience* (Princeton: Princeton University Press, 1992).
 33. Edward Branigan, "Sound, Epistemology, Film," in Murray Smith and Richard Allen, eds., *Film Theory and Philosophy* (Oxford: Oxford University Press, 1997), 101, 104.
 34. *Ibid.*, 105.
 35. *Ibid.*, 106.
 36. Metz admits that phenomenologists "are not sufficiently aware" that the "spontaneous apprehension of things" that they want to describe is in itself a product, an entire body of previous cultural knowledge. See Metz's evaluation of his own phenomenologically grounded epistemology in Weis and Belton, *Film Sound*, 158–60.
 37. Branigan, "Sound, Epistemology, Film," 106.
 38. Nasta, *Meaning in Film*, 90; emphasis added.
 39. Altman, "The Silence of the Silents," 648. Obviously, the fact that only *women* reacted to the visualized sounds of gunshots need not imply that women's capacity to hear sounds top down is more advanced than men's. Rather, the behavior of the women "watching" the noise of gunfire should be ascribed to gender-specific cultural norms and expectations (as perceived by the reviewer).
 40. Branigan lists several examples to illustrate the foregrounding of sound in the sound film through its juxtaposition with images drawn from a different level of the narration. These examples appear to follow the principle of counterpoint and asynchrony championed by early theorists of film sound. See Branigan, "Sound, Epistemology, Film," 109.
 41. Dorothy B. Jones, "Sunrise: A Murnau Masterpiece," *Quarterly of Film, Radio, and Television* 9, no. 3 (spring 1955): 238, 249.
 42. Hugo Riesenfeld's intricate musical score for *Sunrise* marks the peak of silent-film scoring.
 43. Münsterberg advocated the elimination of all nonpictorial elements from the "photoplay," including intertitles and, eventually, the musical accompaniment. See Münsterberg's chapter, "The Demands of the Photoplay," in *The Film*, 82–92.
 44. Eisner, *Murnau*, 184, 85, 84.

45. Dudley Andrew, "The Turn and Return of *Sunrise*," in Andrew, *Film in the Aura of Art* (Princeton, N.J.: Princeton University Press, 1984), 28, 29. An earlier version of this essay was published as "The Gravity of *Sunrise*," *Quarterly Review of Film Studies* 2, no. 3 (August 1977): 356–87.
46. *Ibid.*, 34; emphasis added.
47. Eisner, *Murnau*, 31.
48. *Ibid.*, 65, 81.
49. *Ibid.*, 57. See also 165.
50. *Ibid.*, 158.
51. *Ibid.*, 181, 184; emphasis added.
52. Emphasis added.
53. Carl Mayer, *Sunrise: Photo-play* (Adapted from a theme of Hermann Sudermann's "The Trip to Tilsit"), English translation of original German script contained in the Fox Story Files, Arts, Special Collections Library, UCLA; emphasis added.
54. Robin Wood, "Murnau II: *Sunrise*," *Film Comment* 12, no. 3 (May–June 1976): 10.
55. Andrew, "The Turn and Return of *Sunrise*," 36.
56. Jean-André Fieschi, "F. W. Murnau," in Richard Roud, ed., *Cinema: A Critical Dictionary* (New York: Viking, 1980), 717.
57. Jones, "*Sunrise*," 240; emphasis added.
58. David Bordwell's observation that throughout the intricate tracking shot "the camera pursues an almost perfectly straight path" suggests that the camera may be charting, or, rather, anticipating, the path of sound, that of the approaching Man's footsteps. Indeed, Bordwell's description of the City Woman's actions prior to the meeting ("She starts, looks slightly off left") intimates that she has *heard* certain sounds that make her toss her flower away and start applying her makeup. Bordwell, *Narration in the Fiction Film* (London: Methuen, 1985), 124.
59. See also Dorothy Jones's vivid description of the City Woman's fantasy of the city in "*Sunrise*," 240–41.
60. See Andrew's analysis of the dog episode in "The Turn and Return of *Sunrise*," 37–38.
61. Wood, "Murnau II: *Sunrise*," 13.
62. *Ibid.*
63. According to Lotte Eisner, the "enormous" hand that sounds the klaxon is that of Gibson Gowland, hero of Erich von Stroheim's *Greed* (1924). Eisner, *Murnau*, 182.
64. Andrew, "The Turn and Return of *Sunrise*," 41.
65. See Lotte Eisner's description of the scene in *Murnau*, 181–82.
66. Fieschi, quoted in Roud, *Cinema*, 716.

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