

Sound Waves

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From SOUNDINGS, Neuberger Museum, State University of New York, College at Purchase, 1981 (ISBN 0-934032-X)

But again, and yet again, this chimerical problem of sound rises up to strike us down in our tracks, film and video artists alike, and we cannot forever solve it by annihilating it. Sooner or later, we must embrace the monster and dance with it)

-- Hollis Frampton

Throughout the history of cinema there has been a recurrent controversy concerning the proper role of sound, that Frankenstein's monster spawned by the powers of the film industry and technology. Most critics and filmmakers have felt it to be a quintessentially visual medium in the tradition of other imagistic arts. For some, there has even been an overt hostility toward sound, as though it had led cinema astray from its true formal inclinations. In 1929, on the eve of the silent film's demise, René Clair asked whether 'style'. . . would survive the coming of sound" and prophesied grimly that those "who [had] seen an art being born may also have seen it die."

Even well into the sound era certain filmmakers have expressed a resistance to the cinema's aural component. Avant-garde artist Stan Brakhage, for example, made a conscious choice at some point in his career to treat cinema as primarily a pictorial medium. ³ As he wrote in a letter to Ronna Page in 1966:

I now see/feel no more absolute necessity for a sound track than a painter feels the need to exhibit a painting with a recorded musical background.⁴

Opposing this point of view over the course of cinema's history has been a group of artists who regard sound as a desirable, even requisite, element of the film. In the transitional years of 1926 and 1927 when acoustic technology took over the industry, Rouben Mamoulian was immediately impressed by "the magic of sound recording" that "enabled [him] to achieve effects that would be impossible and unnatural on the stage or in real life, yet meaningful and eloquent on the screen." Likewise, Jacques Tati has called the sound track "of capital importance," and Orson Welles has claimed that language is, for him, the essence of cinema. "I know that in theory the word is secondary," he has remarked, "but the secret of my work is that everything is based on the word. I do not make silent films."⁷ More recently, avant-garde artist Paul Sharits has deemed the relation of sound to visuals "the most engaging problem of 'cinema.'"

Despite the critical controversy concerning sound's place within or without film's aesthetic canon, in truth, it has always made its presence known. The very roots of cinema go back to early sound recording when Thomas Alva Edison conceived the Kinetoscope film viewer as an extension of his photograph apparatus. As he stated:

In the year 1877 the idea occurred to me that it would be possible to devise an instrument which would do for the eye what the phonograph would do for the ear

and that by a combination of the two, all motion could be recorded and reproduced simultaneously. 9

Although the proponents of an image-bound cinema often bolster their claims by noting the historical precedence of a silent era, sound was actually a central part of film exhibition long before 1926. Not only did the idea for Edison's Kinetoscope arise from the phonograph, but almost immediately upon its production, sound-film viewers and projectors were developed as well. As early as 1889 Edison's assistant, William K. L. Dickson, produced a Kinetophone, a film viewing-machine synchronized with a cylindrical record. As the legend goes, Dickson greeted his boss on the morning of 6 October with a movie in which he tipped his hat and said: "Good morning, Mr. Edison... I hope you are satisfied with the Kineto-Phonograph." Only one Kinetophone film survives from this era, showing Dickson playing a violin for two dancing men as he stands next to a huge recording horn. From the descriptions that remain, it would seem that all Kinetophone films from this early period depict the sound-recording equipment itself as well as the sound source.

The Kinetophone was available in the 1890s, but its heyday was 1913-14, when the technology had been further perfected. Edison's *Nursery Favorites* 1913 was made in this period and has the look of most Kinetophone films. It presents a group of performers captured in a continuous, static long-shot, as they dance and gesture to songs on the audiotrack. The effect is constrained and theatrical; the style, devoid of editing and varied camera positions, is a throwback to film's primitive days.

Although sound films were common novelties from the 1890s through the teens, it is clear that in this era most films exhibited did not have a synchronized sound track. Nonetheless, it is a mistake to conceive of the existence of a silent cinema, since sound was always a crucial part of film exhibition. In the alleged silent years, there were various human sound-systems that foreshadowed the mechanical track. Frequently, of course, musical arrangements accompanied films-be it the improvisations of the local piano player or a cued orchestral score. Less known is the fact that actors often stood behind the screen, providing dialogue and sound effects. Some films even had a narrator who related the story to the audience. Thus, the silent era propagated by the critical literature turns out to be a myth. Long before the transitional years of 1926-27, sound had functioned as an integral part of the film experience.

If sound was always an aspect of film exhibition, what precisely happened in 1926 that led critics to divide film history into two distinct periods? Essentially, the year marks a major commercial event in the cinema rather than a complete transformation of film technology or aesthetics. For in 1926-27 the film industry made a financial commitment to the wide-scale production, distribution, and exhibition of mechanically synchronized sound movies. Though the public had been intermittently exposed to sound-film experiments in the teens and the twenties, in the years following 1926 the market was saturated on a grander scale.

As always when a new technology is introduced, there was widespread fascination with the mechanics of the process, with learning how the ventriloquist's trick was done." In the transitional years there were many short educational films that explained basic aspects of sound technique.

Finding His Voice 1929, is a film in this genre. Created by Max Fleischer, this animated cartoon uses two personified filmstrips, one silent and one sound, engaged in a conversation about how the latter got his voice. Through this narrative ploy, various issues of sound recording and

projection are explained, such as the need for soundproofed cameras and the function of the sound engineer.

In addition to being enthralled by the mechanics of sound recording, audiences were fascinated by the opportunity to hear famous people talk. Newsreel companies sent their camera crews around the world to interview various luminaries. *Shaw Talks with Movietone News 1927*, is one such film which provides an occasion for people to meet one of the world's outstanding literary geniuses. Shaw appears to the audience as a consummate raconteur, demonstrating his improvisational wit and humor. He closes the monologue by saying "Goodnight," noting wryly that the phrase would be inappropriate to spectators at a matinée.

Not only were viewers drawn by the magic of hearing Liniotis people speak, but also they were interested simply in hearing the human voice of screen characters. The first attempts at synchronized-dialogue features, however, did not employ the technique throughout the length of the film. Rather, they intermixed sound and silent sequences in a bizarre format known as the "part-talkie." The most famous film of this hybrid genre was *The Jazz Singer 1927* directed by Alan Crosland. Sequences alternate in sound and silence, creating a strangely disjunctive effect. For example, in one scene Jack Robin returns home to his mother, and they greet and embrace in mute silence. When Jack goes over to the piano, however, the film suddenly erupts into sound, and we hear him sing "Blue Skies."

Within short order technical developments allowed for the production of "all-talking" films, the first being Bryan Foy's *Lights of New York 1928*. The mere existence of sound equipment did not assure its sophisticated use, however, and films of this era display a painful struggle with the complex machinery. Because cameras were immobilized by bulky soundproofing, the scenes in *Lights of New York* are oppressively static. Similarly, since the recording equipment of the era was too fragile to be moved, actors tended to cluster maladroitly around mikes which were inadequately camouflaged in the set.

The awkward and farcical growing pains of this era were captured affectionately in Stanley Donen and Gene Kelly's *Singin' in the Rain 1952*. Set at the height of the transition period, the film comically charts the changeover in film technology and personnel, with the careers of many silent stars wrecked in the wake of the new sound wave. The film includes parodies of other works: thirties musicals and the early scored film *Don Juan 1926*. Jokes are made about the traumas of early sound recording background static, loss of synchronization, squeaky voices.

Although the coming of sound generated a multitude of technological problems, it also offered an opportunity for creative filmmakers to conceive of the cinema in a new way. While sound had been part of film exhibition since the so-called silent days, its use had rarely been within the director's purview. Aside from supervising the production of 'a cued score, as in René Clair's collaboration with Erik Satie in *Entr'acte 1924* directors had to leave the sound component to theater owners, who were rarely concerned about its artful use. With mechanical synchronization, however, the production of sound was in the director's hands. From the moment of a film's conception, sound and image had to be treated as an integrated function. This fusion led the cinema down two distinct paths. Some artists took the route of least resistance, using sound and image in the most obvious, realistic ways—ringing telephones, slamming doors, talking heads—sound rigorously synchronous with the image.

The coming of sound also produced the opposite effect. For those filmmakers with more

audiovisual imagination, it provided the occasion for a burgeoning of experimentation with sound. This sense of excitement is articulated by the British director George Pearson in the following entry in a 1930 notebook:

SCREEN DIALOGUE MUST BE FLEXIBLE-MOBILE--as is the camera

What one did with the *moving camera* one must do with dialogue now- i.e. with sound

PAN sound-move the mike *past* sound

MIX sound-run one sound *into* another

FADE sound-let sound die to nothing

IRIS sound-eliminate all sounds *but one*

RUN IN sound-let sound increase in volume

CUT sound-suddenly end sound-drama!" 12

Crucial to this sense of aural experimentation is the realization that sound and image are two separate tracks that can be matched realistically to produce an audiovisual illusion or separated to create myriad disjunctions. As critic Noel Burch has noted, the early sound films seem particularly reflective of this distinction. He writes, in the first sound films ... there was a notion of dissociation, that the two tracks could be used simply or dialectically." 13

This creative use of sound was evident in various genres. One realm in which experimentation felt few constraints was that of animation, since its *mise-en-scène* was, by definition, liberated from the logic of the real world. Walt Disney's *Steamboat Willie* 1928, the first Mickey Mouse sound cartoon, displays this sense of whimsy. In one sequence, when a goat eats Minnie's violin and sheet music, Mickey plays "Turkey in the Straw" on his body, cranking his tail like a phonograph machine. Another charming animated genre of the period was the sing-a-long cartoon. Engaging the audience in direct aural and vocal participation, films like Max Fleischer's *I'm Forever Blowing Bubbles* 1930 and *Let's Sing-a-Long with Popeye* 1934 provided the audience with song lyrics, background orchestration, and the ubiquitous bouncing ball.

Certain documentary films of the era also pioneered experimentation with sound long before the contemporary *verité* approach had overtaken the genre. *Song of Ceylon* 1934, made in England by Basil Wright, displays this sense of sound innovation. A lyrical portrait of Ceylon, the film employs a variety of asynchronous, off-screen sounds-chants, songs, narration, natural noise - to achieve its formal thematic effect. Most impressive is the Voices of Commerce sequence, in which Wright critiques the British exploitation of Ceylon. As images of natives flash across the screen, complex sound mixes unfold, comprising dictated business letters, commodity-exchange figures, industrial machine noises, and other imperialistic traces.

The most extraordinary documentary sound film of the era is assuredly Dziga Vertov's *Enthusiasm* 1930 made in the Soviet Union. Its theme is the efforts of the Don River region to accomplish certain industrial and agricultural tasks of the First Five Year Plan. To convey this information, however, Vertov employs a catalogue of audiovisual effects: sound distortion, sound superimposition, sound reversal, and cacophonous aural collage. Sound is frequently mismatched with the image, as when the noise of an explosion accompanies a church spire's collapse. It is also, on occasion, disembodied, as when a symbolic ticking clock is heard over images of industrial production. Vertov's ultimate achievement in *Enthusiasm* is the reflexivity of his use of

sound-his desire to make the viewer aware of the sound-film process. He frequently includes the sound equipment and crew within the image itself, calling attention to the process of making a film. For Vertov the ideal spectator is one informed of cinematic practice. As he said: "Long live the class consciousness of healthy men with eyes and ears to see and hear with."

This sense of reflexivity is apparent in some of the early fiction sound-films as well, as for example in Fritz Lang's *Das Testament von Dr Mabuse* (*The Testament of Dr. Mabuse*), made in Germany in 1933. A work in the crime-film genre, it relates a gangster's attempts to quit the mob of Dr. Mabuse, an infamous mastermind. The film is particularly noteworthy for its concrete and dramatic use of sound: the opening sequence, with its inexorable clanking of a counterfeiter's printing press, or the blackout scene, in which a man's screams in the (lark alert us to a dangerous situation. One thinks, as well, of the inventive sound bridges Lang employs, having the dialogue from one shot cue in to the next. Most interesting of all is the highly reflexive nature of the film's plot, for Dr. Mabuse never addresses his mob in person, but creates the illusion of his presence by the use of a cut out silhouette and a loudspeaker behind a screen. What better metaphor could Lang have found for the dynamics of the sound film itself?

Although in the years following the coming of sound, experimentation with audiovisual aesthetics continued, by around 1935 a style of facile naturalism tended to predominate in the documentary and fiction genres. Periodically, however, a film would emerge that again demonstrated the full potential of sound. Jacques Tati's *Playtime* 1967 is a work of this stature, set in the comic mode. Rather than rely on dialogue or verbal jokes, Tati bases his humor on a rendering of the aural mise-en-scene. Thus Tati pokes fun at modern architecture by mocking the sounds of swinging doors, electronic intercoms, harsh synthetic floors, or overstuffed vinyl chairs. Likewise, he satirizes the ubiquitous contemporary public-address system that wafts sound indiscriminately through airport, hotel, and hospital. What Tati achieves is the extension of the borders of traditional caricature into the aural domain. To accomplish this he rigorously postsynchronizes his films, eschewing location noise for his own synthetic-sound creations. As Tati has stated, when he has finished shooting the film's imagery "it remains ... to 'reshoot' each scene or sound." 15

The Conversation 1974 by Francis Ford Coppola, is another film that experiments with the audiotrack. Like Dr. Mabuse, its narrative concerns the topic of sound itself for it focuses on the character of Harry Gaul, a professional eavesdropper. In the opening sequence a couple is seen talking in the midst of a San Francisco crowd. It soon becomes clear that the camera is spying on them and that their conversation is being secretly recorded. For the rest of the film, Harry Gaul replays this dialogue scene, filtering out static and decoding latent meanings. We hear the conversation clear and distorted, with or without recording beeps. At points, images of the couple reappear on the screen devoid of synchronous sound. In other segments Coppola replays the audiotape alone, radically changing the narrative context. He notes:

As the couple walks through the park, one of the things they talk about is a bum they see on the bench, a derelict. The girl says "whenever I see one of those old guys, I always think, where are his parents or his uncles." This line is repeated on the tape recorder as Harry is lying on this couch, and the audience is meant to superimpose the image of the bum on Harry."

The viewer's active response to the film is central to Coppola's method of sound experimentation. He has said: "I hope to use the audience as a real element in this film so that they can put things together." 17 In *The Conversation*, Coppola not only articulates a drama about sound-about a paranoid private-ear who lives in a world of acoustic space-but also carries on a challenging

conversation with the audience on the potential of sound recording.

Although the mainstream commercial cinema has always had its monuments to the creative use of sound, by and large a routinely realistic aesthetic has predominated. In avant-garde cinema, however, a vocal minority has been committed to audiovisual experimentation, though many experimental filmmakers have viewed sound with more ambivalence and skepticism. Some independent artists have chosen not to use sound at all—discouraged by its expense, or committed to silent cinema as being more pure, more imagistic. But for those avant-garde filmmakers who have employed sound, experimentation has been a vital tradition. As Hollis Frampton would have it, they have embraced the monster and danced with it. Avant-garde filmmakers have collectively set out to reinvent the rhetoric of sound in the cinema. They have sought to explore its vast potential, its abstract, symbolic, concrete, and evocative qualities, its dialectical relation to the visual image.

Whereas classical cinema has pursued a realistic sound-to-picture match, the experimental film has worked to tear the illusion asunder, to reveal the mechanics of the process. Clearly, the production of 'a sound-image illusion is based on the dynamics of synchronization. Precisely because traditional film has labored long and hard to produce a clean sound illusion, avant-garde filmmakers have sought to disrupt it, to expose the existence of two discrete tracks. Hollis Frampton's *Hapax Legomena III: Critical Mass* 1971 is a clear example of 'a film in this genre. A man and a woman are seen enacting a typical lovers' quarrel. Rather than allow us to hear their dispute, Frampton tears sound and image apart, having them argue just like the couple. Throughout the film, audio- and visual tracks stutter, taking two steps forward and one back. Furthermore, sound and image frequently go out of synch, so that we see the man talking but hear the the woman's voice. At points a harsh recording beep overlies the dialogue, making their litany of criticisms incomprehensible.

Another treatment of synchronization may be seen in Lawrence Weiner's *It Is/Done To* 1974. In this film, silent images of two women conversing are temporally disjoined from their voices on the sound track. Only midway through the film, when the voices finally emerge, do we connect them with the earlier mute images. In *L.A. Carwash* 1975, Janice Crystal Lipzin even more radically separates picture from sound. The film opens with an empty gray screen and a harsh mechanical noise. After a few moments the sound fades off, and multi-screen images of a carwash appear, the source of the earlier sounds. Bruce Nauman's *Playing a Note on the Violin while I Walk around My Studio* 1967-68 makes a joke of sound synchronization. He stands in his loft playing the violin, a posture reminiscent of the earlier William K. L. Dickson, but his strings are tuned to DEAD, and the tones emitted are strange and distorted. Furthermore, he periodically stops his bowing, his gesture hopelessly out of synch with the music's final note. Intermittently, the music stops, and he leaves the frame, almost as though he were changing a record.

Certain experimental filmmakers have used the resonant, evocative powers of sound to create a synaesthetic melding of picture and sound. Australian filmmaker Paul Winkler achieves such an effect in *Bark Rind* 1977 through audiovisual editing. Presented on the screen are gyrating, close-up shots of flowers, bark, grass, and leaves. Accompanying them is the shrill, piercing shriek of insects, repeated and amplified in loop printing. The sense achieved is one of extraordinary kinetic energy—the images themselves vibrating as though they were the source of the buzzing sound. In a similar vein, David Gerstein in *Alternations of Perspective* 1977, conjoins pulsating, fragmented, urban images with a jarring collage of noise: sirens, static hum,

hammering, buzzing, as well as electronic music. When a jackhammer is heard on the track, the visuals vibrate in such a manner that the image itself seems to be drilled.

Other filmmakers have seen in the formal potential of sound an occasion to relate film to music. Oskar Fischinger was a pioneer in this area. Working in Germany in the late twenties, he produced a body of films that tied visual design and movement to musical progression. In *Motion Painting No. 1* 1949 made after he had moved to the United States, Fischinger orchestrates his oil-on-glass abstractions to Bach's *Third Brandenburg Concerto*. On an entirely different note, Bruce Conner and Kenneth Anger have used music derived from pop-culture forms. In *Permian Strata* 1969, Conner ironically links found images of an apostle being martyred to Bob Dylan's lyric "Everybody Must Get Stoned." In *Kostum Kar Kommandos* 1965 (page 27), Kenneth Anger wryly weds the rock-and-roll song "Dream Lover" to images of young men erotically buffing their fetishized cars. Bruce Baillie in *Castro Street* 1966 strives for an equivalence between sound and visuals, joining matted, superimposed industrial imagery to a dense fabric of music and ambient sound. He has referred to the film as "inspired by a lesson from Erik Satie,"⁸ a composer whose music drifts periodically through the sound track. A compositional sense also informs the sound tape for Meredith Monk's *Ellis Island* 1980, which accompanies haunting images of immigrants held in benign detention. Finally, some artists have chosen to integrate instrumental performance into their films. Like Bruce Nauman's *Playing a Note*, Larry Gottheim's *Harmonica* 1970-71 is a work in this genre. Essentially, it is a single-take film of a man in a moving car holding a harmonica. At some points he actually mouths the instrument, but most often he simply holds it in the air, allowing it to be played by the wind. As the man gracefully moves the harmonica back and forth in various trajectories and arcs, different sounds are produced, from train-whistle chords to wails.

While music has attracted certain avant-garde filmmakers because of its non-referential quality, language has fascinated others because of its semantic potential. Whereas the classical cinema has traditionally employed words as synch-sound dialogue or voice-over narration, experimental film has attempted to exploit their formal and expressive possibilities. In *Mujer de Milfuegos* (*Woman with a Thousand Fires*) 1976, Chick Strand conjoins images of a mysterious woman with a sound track of poetic incantation. George Landow's *Institutional Quality* 1969, on the other hand, is a mock test-film that uses language for its conceptual powers. In a comedy of mixed signals, a voice speaks in direct address to the audience, instructing it to do things inappropriate to the film-viewing situation. In Lawrence Weiner's *Is/Done To* 1974, the narrative capacity of language is analyzed and demonstrated. As silent images of two women conversing appear, the sound track is filled with the multilayered vocal repetition of oblique phrases: "and! the," "an undermining of the sequence," "a treatment of dissonances." Given the narrative fragmentation of the film, these phrases tend to highlight the conjunctive power of words and images.

Still other experimental filmmakers have explored the nature of ambient sound and its ability to create a spatial sense. Frequently, animated films have been the most innovative in this regard since they are freed from the rigorous constraints of real physical and acoustical space. Jane Aaron's *Interior Design* 1980 which explores the terrain of some rooms, employs natural sounds—sheets folded, water dripping, a whistling teapot—to lend authenticity to her drawn and photographed animation. In a similar vein, Robert Breer's *T.Z.* 1980 creates an abstract domestic atmosphere by conjoining sketchily drawn visuals with concrete material sounds—pots clanking, phones ringing, fat frying, etc. In the live-action film *Breakfast (Tabletop Dolly)* 1972-76, Canadian filmmaker Michael Snow accompanies his mobile still life with off-screen sounds that create an early morning ambience: water dripping, pots banging, a radio spouting weather

forecasts. In all of these films a sense of physical presence is created, not so much by the composed and rarified visuals, as by the concrete materiality of sound.

In a highly reflexive gesture, experimental filmmakers have frequently chosen to highlight the nature of film sound and the dynamics of its production. In *Arnulf Rainer* 1958-60, Austrian Peter Kubleka fashions an audiotrack from white sound, a mixture of all audible frequencies. In *Dots* and *Loops*, both 1939- 41, made in Canada, Norman McLaren produces sound by drawing directly on the celluloid ribbon. In *Color Sound Frames* 1974, Paul Sharits creates a score from sprocket-hole noise, while simultaneously depicting the moving filmstrip on the screen. Curiously, in this impulse to expose the very materials of the sound-film medium, avant-garde artists have unconsciously harkened back to the aesthetics of the Kinetophone movie, which quaintly included the sound recording horn within the bounds of the film frame itself.

NOTES

1. Hollis Frampton, "The Withering Away of the State of the Art," photo-copy (Paper delivered in New York at The Museum of Modern Art Conference "Open Circuits: The Future of Television," January 23-25, 1974).
2. René Clair, *Cinema Yesterday and Today* (New York: Dover, 1972), p. 125. (Clair writes in 1970 recollecting his feelings in the 1920s).
3. Brakhage has made several films, however, e.g.: *Daybreak* and *Whiteye*, both 1957, *Blue Moses*, 1962, and more recently *The Stars Are Beautiful*, 1974.
4. Stan Brakhage to Ronna Page in P. Adams Sitney, ed. *The Avant-Garde Film: A Reader of Theory and Criticism* (New York: New York University Press, 1978), p. 135.
5. Rouben Mamoulian in Andrew Sarris ed. *Interviews with Film Directors* (New York: Avon Books, 1967), pp. 346-47.
6. Jacques Tati in Brent Maddock, *Jacques Tati* (Metuchen, NJ: Scarecrow Press, 1977), P. 142.
7. Orson Welles in Sarris, *Interviews*, p. 535.
8. Paul Sharits, "From 'Words per Page'" in Sitney, *AvantGarde Film*, p. 262.
9. Thomas Alva Edison in Edward Kellogg, *History of Sound Motion Pictures*. Reprinted from *Journal of the Society of Motion Picture and Television Engineers*, 64 (1955): 1.
10. Quoted in Rosalind Rogoff, "Edison's Dream: A Brief History of the Kinetophone," *Cinema Journal*, 5 (Spring 1976): 60.
11. Rick Altman discusses this concept in "Moving Lips: Cinema As Ventriloquism," *Yale French Studies*, 60 (1980): 67-69.
12. George Pearson in Rachel Low, *History of the British Film* vol. 4 (London: Allen and Unwin, 1948), pp. 210-11.
13. Noel Burch, "Beyond a Theory of Film Practice: An Interview with Noel Burch," *Women and Film* 1(1974): 2031.
14. Dziga Vertov in Annette Michelson, "The Man with the Movie Camera: From Magician to Epistemologist." *Artforum* (March 1972): 66.

15. Jacques Tati in Maddock, Tati, p. 142.

16. Francis Ford Coppola in "The Conversation": Handbook of Production Information (New York: Paramount Pictures, 1974) p. 9.

17. Ibid., p. 10.

18. Bruce Baillie in P. Adams Sitney, Visionary Film (New York: Oxford University Press, 1974), p.208.

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