ABSTRACT

This paper traces the history of motion pictures from Thomas Edison's vision in 1887 of an instrument that recorded body movements to the development of synchronized sound-motion films in the late 1920s. The first synchronized sound film was made and demonstrated by W. K. L. Dickson, an assistant to Edison, in 1889. The popular acceptance of silent films and their contents is traced through the development of film narrative and the use of music in the early 1900s. The silent era is labeled as a consequence of technological and economic chance and this chance is made to account for the accelerated development of the medium's visual communicative capacities. The thirty year time lapse between the development of film and the use of live human voices can therefore be regarded as the critical stimuli which pushed the motion picture into becoming an essentially visual medium in which the audial channel is subordinate to and supportive of the visual channel. The time lapse also aided the motion picture to become a medium of artistic potential and significance. (RB)
THE HUMAN VOICE AND THE SILENT CINEMA

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The dream of arresting an unbroken arc from the visual and aural components of time's continuum helped lead to the invention of cinema. Edison, for example, wrote:

In the year 1887, the idea occurred to me that it was possible to devise an instrument which should do for the eye what the phonograph does for the ear, and that by a combination of the two all motion and sound could be recorded and reproduced simultaneously.¹

One of Edison's visions was the recording of performances at the Metropolitan Opera House for later generations.²

At about the same time in France, the photographer Nadar wrote: "My dream is to see the photograph register the bodily movements and facial expressions of a speaker while the phonograph is recording his speech."³

Such dreams were translated into numerous inventive efforts during the next four decades.

The first attempt to actualize this vision was made by Edison's assistant, W. K. L. Dickson. Dickson claimed that in 1889 a synchronized sound film was demonstrated in which Dickson appeared and said "Good morning, Mr. Edison, glad to see you back. Hope you
like the kinetophone. To show the synchronization
I will lift my hand and count up to ten."4

The marriage of the phonograph and moving picture was
not commercially exploited, however, until 1895, when
the kineto-phonograph (a refinement of the silent peep-
show or kinetoscope) enabled a single viewer to see
and hear a short performance by a singer or an organ-
grinder's monkey responding to a strain from Norma.5

In 1895 and 1896, the development and exploitation of
projected moving pictures relegated the kineto-phonograph
and its silent companion, the kinetoscope, to obsolescence.

During the next three decades the urge to render
synchronized sights and sounds resulted in frequent
attempts to link the projected motion picture and
phonograph. The French entrepreneur, Leon Gaumont, made
several efforts to achieve satisfactory synchronization.
Carl Laemmle, an American film pioneer, tried in 1907
to exhibit a German development called Synchroscope.

In Germany, Oskar Messter worked on the same problem.
And in 1913, Edison made a serious attempt to provide
synchronized sound.6 These early experiments failed,
however, because of poor sound quality, inadequate
amplification and imperfect synchronization.7

In the early 1920's, Lee DeForest made successful
sound-on-film experiments but the film industry, riding a
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crest of expanding popularity, was not interested. By 1926, the Bell Telephone Laboratories perfected a sound-on-disc system. Warner Brothers facing bankruptcy grasped the device in hopes that the novelty of synchronized sound would provide the basis for a comeback. After a year of cautious exploitation, the Warners' Vitaphone caught the public's imagination with Al Jolson in The Jazz Singer (1927). With the public's acceptance and enthusiasm the rush was on. The industry scrambled to make the conversion to sound. In the process, the Warners' phonographic method was replaced by the sound-on-film system which became the new technological mode for film communication. The technical and economic conditions necessary for the accurate interlocking and amplification of images and sounds had at last arrived.

It is evident from the speculations and inventive efforts of men such as Edison, Nadar, Gaumont and Messter, that synchronized sound was from the start a vital part of the concept of cinema. Therefore the appearance of mute moving images in the 1890's was only a partial fulfillment of the drive to mechanically reproduce both sight and sound. That a successful sound system did not emerge until the late 1920's can therefore be regarded as accidental. The silent era can consequently be considered
the product of technological and economic chance.8

The Need for Sound

Films of the silent era were not, however, exhibited in total silence for several important reasons. There was the need to mask disagreeable sounds emanating from the projector, patrons, ventilation fans and traffic outside the theater. A related need arose from the discovery that silent projection (i.e., the absence of any sound intended as part of the performance) was not easily tolerated by the public. Unaccompanied film images were negatively described as "noiseless fleeting shadows,"9 "cold and bare,"10 "ghostly shadows,"11 "lifeless and colourless,"12 "unearthly,"13 and "flat."14 There was also the need to provide dramatic and narrative support for the silent streams of images. In order to satisfy these needs, several "solutions" were tried.

Aside from the efforts to employ the phonograph, exhibitors had recourse to instrumental music, sound effects, narrators, live actors mouthing dialogue from behind the screen and singers. It is the purpose of this paper to explore those attempts at providing aural accompaniments involving the live human voice.

Narrators

To satisfy the felt need for some kind of sound
accompaniment, film exhibitors conducted various trials with narrators. These efforts were extensions of two 19th-century entertainments, the ballad singer and the lantern slide lecturer.

The ballad singer was a traditional part of rural Continental festivals. Travelling from fair to fair the balladeer recited stories of adventure while pointing out in a series of paintings or sketches the main incidents of the tale. According to film music authority Kurt London, the ballad singer declaimed in a singsong manner and was an influence on early European film narrators.

The first 'films' were show in a kind of show-booth or similar obscure premises. They were turned at great speed and each lasted only a few minutes. In the beginning, they had as yet no explanatory subtitles, and would, without a commentary, have remained in many cases unintelligible to their simple-minded audience. As a result the narrator was reinstated, to keep the spectators in a good humour and to act as 'compere' to the films, in the tradition of his predecessor, the ballad singer.\textsuperscript{15}

Related to the ballad singer was the lecturer who accompanied a show of lantern slides. Alexander Black, a prominent slide lecturer who toured the American lyceum circuit, typified this approach in dramatic
productions he prophetically called "picture plays." Working from an original script, Black would present a two hour story from the lecture platform while projecting about three hundred photographs. The influence of this entertainment mode is illustrated in the case of Cecil Hepworth, a pioneer of the British film industry.

Hepworth, like Black, had toured with travelling lantern slide shows. When he acquired several films from Robert Paul, the early British filmmaker, Hepworth took the natural step of combining these with his slides and lecturing. His production of "The Storm" exemplified this multi-media concept. While running the slide and film projectors, Hepworth delivered a running commentary designed to intensify the emotional impact as did the piano accompaniment provided by his sister.

The sequence opened with a calm and peaceful picture of sea and sky. That changed to another seascape, though the clouds looked a little more interesting, and the music quickened a bit. At each change the inevitability of a coming gale became more insistent and the music more threatening; until the storm broke with an exciting film of dashing waves bursting into the entrance of a cave, with wild music.

When motion pictures scored their initial American successes in vaudeville houses in the late 1870's,
narrators were sometimes brought in to "explain" more complicated films. Such was the situation with Richard G. Hollaman's New York rooftop counterfeit production of The Passion Play at Oberammergau (1898). Hollaman hired a lecturer to guide the audience through the several scenes (the motion picture had not yet developed into a narrative medium) and to point out that the film had been made in Germany.\[18\]

Narrators were also employed to comment on scenic views of such exotic foreign and domestic locales as Japan, Switzerland, Pike's Peak and Niagara Falls. One especially interesting enterprise was Hale's Tours and Scenes of the World. These small movie theaters in the form of railroad passenger cars enjoyed great popularity throughout the United States for several years starting in 1905. In the New York show operated by Adolph Zukor, a lecturer expanded on the scenes which had been photographed from moving trains around the world.\[19\]

More refined and reflecting the tradition of the lyceum and Chautauqua was the illustrated lecture. In Chicago, Henry Lee's "Cyclo-Homo" (1908) was described by the New York Dramatic Mirror. Mr. Lee's bill is largely educational, including moving picture scenes from all parts of the world, supplemented by travelogue lectures, sound effects and other features to add to the interest.\[20\]
In New York, Yadison C. Peters presented a series of "illustrated lectures" utilizing moving pictures and colored slides on such topics as "Japan and the Japanese," "Italy and the Italians" and "Ireland and the Irish."  

With the evolution of the commercial film into a story-telling form, the need for providing narrative continuity grew. In the pages of the *Moving Picture World* (established in 1907), the cause of the film narrator was championed by the articulate W. Stephen Bush. Bush cited several reasons to support his argument.

In his first position paper of 1909, Bush pointed out that audial and visual stimulation were necessary to prevent tedium.

```plaintext
... the burden of absorption becomes too heavy and tiresome for the one sense alone [i.e., the visual channel]; the eye demands to be satisfied as well as the ear, and the ear becomes eager to share its burden with the eye.  
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In addition to the obvious function of elaborating on plot and character, Bush believed that a good lecturer helped silence the "buzz and idle comment" by becoming the audience's "spokesman." And through the power of inspired speech the spokesman functioned to bond the
spectators together in a dramatic experience of transcendent emotional intensity. To corroborate this view Bush quoted from the Parisian art critic, Cellatier.

If this sort of entertainment [i.e., the moving picture] is ever to stop being a toy and is to become a permanent institution in the amusement world it needs the assistance in some shape or other of the human voice.

In later articles Bush argued that competent narration and increased profits were directly correlated on the assumption that patrons preferred their film entertainment with spoken accompaniment.

In his series of articles on film narration which spanned the period of 1909-1912, Bush articulated a number of guidelines. He first urged lecturers to select only those subjects which could be enhanced by narration. Most suitable were pictures based on novels, plays, poems and historical events. To be avoided were comedy and magic films. Bush also expressed concern for the proper integration of the lecture with music and sound effects. In regard to explanatory titles, Bush advised that only music should be heard so that the title's meaning could be absorbed. In general though, the narration was to be featured with music and effects.
playing subsidiary roles. For the potential lecturer Bush specified the requirements of "a good voice, a fair education and a determination to give the best there is in you at all times." Also stressed were "a thorough and patient study of the picture" and adequate rehearsal. His final word of caution was an appeal to the lecturer's sense of discretion.

Do not, however, attempt to lecture on a film unless you feel in your heart and soul that there is need for it [i.e., commentary] and that you are competent to fill that need.

Bush concluded that the film with live human voice should be a special feature and not just part of the theater's everyday routine.

With the hope of providing encouragement and guidance for film narrators, Bush authored a lecture for the Edison production Foul Play (1911). He prefaced the lecture by noting that while continuous commentary was not required there were still many sections which could be made clearer by explanatory remarks. The "Introduction" and comments for Reel I exemplify Bush's approach.

Introductory.
"In presenting to you, ladies and gentlemen, this evening's entertainment, a few words of explanation may not be out of place."
'Foul Play' is the title of a well-known novel by Charles Reade, with whose works some of you no doubt are acquainted. It is a thrilling and romantic story and will be unfolded before your eyes in three reels. You will see it as you would a drama in three acts, only the action will be swifter and the intermissions shorter. The first reel will show you two young men, one honorable and unsuspecting, the other crafty and criminal. To pay his gambling debts the bad fellow forges the name of his father on a check and gives it to the other man, who endorses and cashes the check and is arrested as a forger and sent to prison in a colony for five years."

(After these remarks have the operator start the first reel and explain the first picture as follows:)

Scene I.

"Arthur Wardlaw, son of a rich merchant and friend and pupil of Robert Penfold, while a student at Oxford, suffers heavy losses at the gambling table. He gets deeply into debt."

"With the aid of Penfold young Wardlaw graduates from the University and is made a partner in his father's business."

(The next scenes up to the title "General Rolleston and his daughter Helen, guests at Arthur's dinner" may be covered by the following remarks:)

"Penfold, wishing to open a school, asks Wardlaw for a loan. The latter conceives the plan of forging his father's name on a check, made payable to young Penfold. He sends the forged check to Penfold and tells him to take out seven hundred pounds and give the rest (thirteen hundred pounds) to him. Suspecting no wrong, Penfold cashes the check and tells his father about his good luck."
(When the scene with the title "General Rolleston and his daughter Helen, guests at Arthur's dinner" is flashed on the screen, continue lecture as follows:)

"General Rolleston, a retired soldier, and his daughter, to whom young Wardlaw is engaged to be married, and old Wardlaw. A messenger insists on seeing old Mr. Wardlaw to find out whether his signature on the two thousand-pound check is genuine. Old Wardlaw denounces the check as a forgery."

(The concluding scenes of this reel may be covered by the following remarks:)

"Detectives call at the house of Penfold and arrest him as a forger. He turns for help to Wardlaw. The latter is made sick by fear and does not appear at the trial to clear his friend. In consequence, Penfold is found guilty and sentenced."

END OF REEL I.

Bush's encouragement and guidance had limited impact and lecturers never achieved the level of acceptance for which he hoped. One problem involved the shortage of "qualified" narrators. Other problems included the lack of films suitable for lecture, poorly prepared lectures, a residual prejudice against lecturers going back to the pre-motion picture stereoptican presentations and lecturers' difficulty in projecting over the din created by the patrons, projector, ventilation fans and noises from outside the theater. After reaching a peak popularity in 1912 the lecturer was doomed as a passing fad due to forces emerging from the evolution of the art
and business of the motion picture during the period 1910-1915.

Filmmakers like Griffith were developing visual narrative devices such as parallel editing, fades and close-ups which combined to reduce the necessity of the spoken or printed word. Films were also increasing in length so that by 1915 the feature-length era had been entered. Longer and more complex films meant longer and more complex narrations, a challenge successfully met by only a few narrators. And along with feature pictures came a construction boom which created the institution of the picture palace. Successful voice projection which had been difficult in smaller theaters was impossible in the huge cathedrals of the motion picture. With only a few and brief exceptions, the film narrator had by 1915 become an extinct species.

Voices Behind the Screen

Another attempt at using the human voice involved the employment of actors who were stationed behind the screen to speak dialogue. This innovation surfaced in 1908 under such trade names as "Humanovo," "Actologue" and "Dram-o-tone." Of the larger companies, Adolph Zukor's Humanovo was the most successful.
By July, 1908, Humanovo had twenty-two road troupes, each consisting of three actors. Each company stayed at a theater for one week and then moved to the next location in the manner of touring vaudeville acts. The troupes travelled in "wheels" so that a contracted theater had a change of pictures and company each week. Will H. Stevens, the general manager of Humanovo, described his method of operation:

First, I select a suitable picture, then I write a play for it, putting appropriate speeches in the mouths of the characters. I write off the parts, just as is done in regular plays, and rehearse the people carefully, introducing all possible effects and requiring the actors to move about the stage exactly as is represented in the films, so as to have the voices properly located to carry out the illusion.32

Humanovo continued to prosper so that by November, 1908, a western branch headquarters in Los Angeles had been opened.33

In spite of the initial successes of well organized companies like Humanovo, problems developed. W. Stephen Bush spoke of the actors' inability to produce a "perfect illusion."34 Part of what Bush had in mind were absurd image-voice juxtapositions such as a heroine articulating her cry of help in the deep growling bass of the villain.35
A related problem was the introduction of "cheap efforts at wit into pathetic scenes" which transformed a dramatic picture into a burlesque. Even advocates of "talking pictures" expressed implied reservations as evidenced by their calls for better elocutionists. And then there were problems of synchronization. The cry of "fire" after the filmed flames had been doused obviously struck a bizarre note. Equally ludicrous were the frequent attempts to match dialogue to the movement of the screen actors' lips.

Some of the excesses mentioned above can be traced to economics. Since small theaters could not afford to hire travelling companies they attempted a cheaper substitute by using one person to take all roles. This economic short-cut resulted in poorly prepared scripts or improvisations, repetitions of the same dialogue for different pictures, strange aural-visual combinations and the use of "actors" with little dramatic inspiration.

The novelty of live actors soon expired and the matter ceased to be of concern to the trade press after 1911. Sealing the fate of rear-screen thespians were the trends toward longer pictures and larger theaters. Longer and more sophisticated pictures meant additional expense as more actors, more rehearsals and better scripts
had to be provided. Larger theaters increased the difficulty of projecting the human voice through the screen and audiences could just not understand the actors' dialogue. Consequently, live actors, like narrators, were victims due in part to the artistic and economic growth of the motion picture.

**Singers**

A third method of employing the human voice was through the use of singers. This practice was especially effective in films that were essentially illustrations of popular and patriotic songs. *Silver Threads Among the Gold* (Edison, 1911), *The Star Spangled Banner* (Edison, 1911), *The Battle Hymn of the Republic* (Vitagraph, 1911), *Ben Bolt* (Solax, 1913), *Home, Sweet Home* (Griffith-Reliance, 1914) and *After the Ball* (Photo-Drama, 1914) provided excellent opportunities for the accompanying human voice in song.

With the coming of the feature film, however, singers were primarily employed as extra attractions to be used in the stage entertainments preceding the feature film. The only exceptions were the special show-case presentations in the huge metropolitan picture palaces. Thomas Ince's *Civilization* (1916) was, for example, first exhibited at New York's Criterion Theatre with a special score by
Victor Schertzinger utilizing a chorus of sixty voices. In general, however, singing accompaniments were rare and special events.

Conclusion

Because of the failure of inventors to deliver "the myth of total cinema" in one neat package, motion picture showmen were forced to experiment with alternatives to synchronized recorded sound due to audiences' felt need for aural stimulation. And because lecturers, actors behind the screen and singers proved ineffective, instrumental music supplemented with occasional sound effects became almost by default the silent film's constant accompaniment.

The most significant consequence of the fortuitous thirty year span we call "the silent era" is that filmmakers were forced to invent visual means for expressing emotions, articulating ideas and telling stories. This accident of technological evolution accounts to a very large extent for the accelerated development of the medium's visual communicative capacities. The delay in "the coming of sound" also short-circuited the Edison-Nadar dream of using the sound motion picture as a mere recording device for operas and speeches as filmmakers
demonstrated film's ability to express visions from the interiors of men's hearts and minds. The failures of recorded and live human voices can therefore be regarded as critical stimuli which pushed the motion picture into becoming (1) an essentially visual medium in which the audial channel is subordinate to and supportive of the visual channel and (2) a medium of artistic potential and significance.
Notes


2 Ibid.


4 Dickson's own account, History of the Kinetograph, Kinetoscope and Kineto-phonograph, p. 19, which has been passed on by several film historians, is questioned in the careful researches of Gordon Hendricks in The Edison Motion Picture Myth (Berkeley and Los Angeles: University of California Press, 1961), pp. 88-91. In American Film Criticism (New York: Liveright, 1972), p. 211, Stanley Kauffmann (ed.) quotes from the May 20, 1893, issue of Scientific American, which describes an Edison machine designed to project sound-synchronized motion pictures.


7 For a complete account of the development of sound motion pictures, see Kellogg's three-part "History of Sound Motion Pictures" in Fielding's A Technological History of Motion Pictures and Television, pp. 174-220.
8 This argument is derived from Bazin, What Is Cinema?, p. 21, who maintains that "the myth of total cinema," i.e., the dream of a perfect mechanical reproduction of reality, preceded the actual invention of cinema itself. Bazin regards the silent film as a stage in the realization of the "myth" and states that "the primacy of the image is both historically and technically accidental."

9 Harvey Brougham, "The Play's Not All," Overland Monthly, November, 1920, p. 82.

10 Stuart Fletcher, "Two Arts that Meet as One," Sackbut, June, 1929, p. 374.


23 Ibid.


38Beynon, Musical Presentation of Motion Pictures, p. 9.

39Ibid.

40See Ben M. Hall's The Best Remaining Seats (New York: Bramhall House, 1961) for numerous examples of stage attractions featuring singers.


43Inserted explanatory titles were obviously of importance in assisting the film in its narrative efforts. But titles had the negative effect of interrupting the film's visual and dramatic continuity. For discussion of inserted titles see Macgowan, Behind the Screen, p. 117, and Lewis Jacobs, The Rise of the American Film (1939; rpt. New York: Teachers College Press, Columbia University, 1968), pp. 220-1.

44The discovery of film's artistic, dramatic and rhetorical potentials did not in any way negate the value of film's recording capacity as envisioned by Edison and Nadar.