DEFINING A NEW MEDIA
The Discourse on and Technology of Sound Film in Denmark and the USA, 1923-1930.

When Danish engineers Axel Petersen and Arnold Poulsen in September 1923 presented Den talende Film (The Speaking Film) they had compiled a program consisting of small numbers introduced and held together by editor and popular author Axel Breidahl. He stressed the fact that the invention of the speaking film had great potential: “Imagine that the speech of a member of parliament can be photographed and sent to his voters so that they may go to the movie theatre to see and listen to what he has said. And imagine that the speeches at an annual bank meeting can be photographed.”

The idea that the political debate could become stronger (and, one might add looking back: more controlled) by the talkies held good. Audiences did go to the movie theatres to hear what politicians or at least heads of states had to say. That is what happened in the case of newsreels during the 1930’s and 1940’s. Then they reached as many people as the printed press (Hjarvard 1990: 39), until television moved politicians into the living rooms and away from the movie theatres, which they now only visit as reality effects in fiction films. Concerning the other example mentioned by Breidahl, the film from the annual bank meeting, the question is whether its subject would not have been too narrow for theatre distribution? Maybe Breidahl suggested a kind of industrial film? Or CNN Business News?

Who says that a film may only be shown in a movie theatre - and who says that ‘film’ is synonymous with the feature film about which Breidahl had absolutely nothing to say?

In this article I wish to show that sound film, neither in the USA nor in Denmark, was initially thought of in terms of narrative feature film. It did not become narrative feature film before the unfolding of a genuine battle of discursive and technological nature. A battle that is traceable in several sources. I therefore present a series of film history facts related to the emergence of sound film in the USA and Denmark. I concentrate on the intimate, and often overlooked, connections between early sound film and the cultural media of revue (or vaudeville) and radio, and on the multitude of sound recording and sound reproducing systems available to film production and exhibition in the years around 1930. In the course of this presentation I take the opportunity to state a polemic case for a non-linear conception of film history, claiming that rather than being a technology, cinema is a set of heterogeneous practices.

Revue and radio

Returning to Den talende Film there was an obvious discrepancy between Breidahl’s
prologue and the contents of the overall program of Den talende Film. The audience met neither the politicians, nor the bankers so eloquently called for in Breidahl’s address. They met “many well-known, Danish artists” who spoke and sang. Half the program consisted of presentations of Danish national literary canons whereas the other half presented the most popular cabaret and revue artists of the day.  

The tone of the ‘high’ culture parts was of a serious nature but the tone of the overall program was that of joyful entertainment. Popular revue-entertainment with invisible miking and scenic frontality (actors bowing and looking directly into the camera) was used to promote the system of Petersen & Poulsen: not a narrative cinema, but rather a cinema of attractions.  

Three years later Warner Bros.’s American Vitaphone program of August 6, 1926 shared many stylistic features with the program of the Danish pioneers. The Warner program consisted of two parts: short sound films totalling approximately 70 minutes, and Don Juan, a feature film with synchronous, symphonic incidental music. In the short films Vitaphone tried to reproduce a scenic form of representation as did the Danish examples. But as for genre and content the two sound film programs were worlds apart. The Danes presented national and popular entertainment, the Americans presented international (i.e. European), classical music. The tone of Will Hays’ introduction was not merry but pathetic. Hays was not - like Breidahl - a popular author, and in opposition to Breidahl who was the chairman of the Danish Vaudeville Writers’ Guild, Hays was the chairman of the MPPDA, Motion Picture Producers and Distributors of America, the so called Hays Office. He was thus the official spokesman and lobbyist of the film-industry.  

In his speech, Hays stressed the fact that music played an invaluable part in the presentation of moving pictures, which he consequently saw as a “most potent factor in the development of a national appreciation of good music.” The education of the citizens, especially the citizens in rural areas, was on his mind. He was right in noting that symphonic music had been and still was being played before and during the screenings of motion pictures. New Yorkers, for instance, during World War I went to the Rialto Theater to listen to classical overtures before the film program and to compilations of especially late romantic music during the program (Anderson 1988: xix). In the 1920’s citizens of Copenhagen could do the very same thing at least in major theatres such as Palads and Kinopalæet (Lauridsen 1994). Symphonic music was not, however, played in Denmark or in the USA in the small theatres around the country. Hays expressed the hope that sound film could change that. But that never happened. Or at least it only
happened if one considers the orchestration and the idiom of the music. In what is usually referred to as the Golden Age of Hollywood music (1935-1955), music was to be composed in a musical idiom and performed by an orchestra owing practically everything to late 19th century symphonic, European music. But if "good music" Hays meant music by composers such as Mozart, Beethoven, Strauss, etc., the music of the sound film to come was not the one Hays predicted. Well-known classical music was sparsely used in sound film scores.\(^{13}\)

The program that Hays introduced, however, was in the classical, symphonic vein. The score for Don Juan, an original composition by David Mendoza, William Axt and Major Edward Bowes, who had been working together in the music department of New York's Capitol Theater, was very much business-as-usual in reference to silent de-luxe theater practice. And the program of short films that preceded the feature film consisted of high culture, musical material only: opera, chamber music, orchestral music.

If one were to believe the intentions pronounced by Will Hays and, at the same time, to consider only the first program presented, one would be misled into believing that classical music was the dominant, "musical salesman" of Warner Bros.'s sound project. But the initial, pronounced intentions and the practice to come were to be very different. In the USA - and in Denmark. Neither Warner Bros. nor Nordisk Tonefilm (Nordic Sound Film)\(^{14}\) did much for the high cultural education of their audiences. Warner did open with the overture of Wagner's Tannhäuser but looking at the total output of shorts produced by that company from 1926 to 1931 one finds quite another art form to be dominant, and thus to be the one used for boosting sound film. This was the vaudeville, the American equivalent of the British music hall, the French variété, and - mutatis mutandis - the Danish revy. Eightyfive percent of Warner's shorts were vaudevillian, of these comic sketches were approximately half. Only around ten percent were classical entertainment: overtures, operatic arias, and chamber music.\(^{15}\) The speech delivered by the politician or the report from the annual bank meeting (as imagined by Breidahl, the Dane) never became part of Warner Bros.'s game.\(^{16}\) Vaudeville provided the material for early sound shorts\(^{17}\) - and for radio.

Radio, for its part, was important for short sound film, as it formed a significant part of Warner Bros.'s ideas about experiments with sound. The concept for the first Warner Bros.'s sound film program was thus borrowed from a radio program, broadcast once a week from the beginning of 1925 (Altman 1992: 119pp). In an interview Albert Warner explicitly referred to radio when talking about the future sound films of the company: "At a phenomenally small cost the unquestionably planned and perfected radio music program will begin a new era for moving picture patrons throughout the country" (New York Times, April 26, 1926. Italics added).\(^{18}\)

From a Danish perspective nobody ever promised that sound film should develop the "national appreciation of good music" that Will Hays had talked about in the USA. The 125 short films produced by Nordisk Tonefilm and later by A/S Nordisk Tonefilm from the fall of 1928 to the opening of the first Danish sound feature film, Presten i Vejlby (The Vicar of Vejlby, May 7, 1931), show a radical preponderance of songs, ballads, and sketches even though also a few newsreels and advertising films were on the repertoire.\(^{19}\) There is an interesting contrast between Hays's American vision of Vitaphone bringing "symphony orchestration to the townhalls of the hamlets" (Bandy 1989: 17) and the arguments put forward in 1930 by the Danish Musicians' Guild and others, when the silent film and its theatre musicians became really threatened by the sound film. It was underlined that live theatre music had an "educational power," and that "movie theatre orchestras have been important" in that area (Dansk Musiker-Tidende, 1930, nr. 10: 151).

In July 1929 Nordisk Tonefilm presented itself to Danish exhibitors at their congress in Copenhagen. Axel Petersen and Arnold Poulsen explained the technicalities of their system, whereas the president of the company, Mr. Selmer Trane, and its artistic director, Mr. Fritz Lamprecht, gave an account of the possibilities of sound film. A few shorts, thematically in the vein mentioned above, were shown: "the departure, speed, and arrival of a railway train, a declaration by a German actress, the changing of the guards of the Royal Danish Castle, Ingeborg B.B. an advertisement for a Danish detergent etc." (Biografbladet, August 15, 1928: 8. My translation). Biografbladet\(^{20}\) told the story of the possible applications of the speaking film:

As was underlined by the speakers at the demonstration, sound film does not intend to compete with silent film and it never will be able to do so [...]. The speaking film,
However, is strong in many other fields which is where - in due time - it will know how to hold its own. (Ibid., my translation, italics added)

Sound film and silent film thus were considered two different media, having nothing to do with one another. They were not seen to be able to compete. Sound film, it was thought, might be used for shorts of an entertaining, educating, journalistic, or advertising nature whereas silent film - which becomes clear from examples mentioned in the article - was seen to be the dramatic film art and would remain so.

When in Spring 1929 Nordisk Tonefilm presented its products to the general public, the ads claimed that the shorts contained "Music, Song, Humorous Moods" (Biograflajdet, April 1, 1929: 7). Selmer Trane guaranteed a "minimum of 50 programs a year with a duration of four to twelve minutes" (ibid.: 6). He also mentioned that speech would "be at the service of all advertising companies" (ibid.). Once again the short film was regarded as the interesting one for sound and neither feature films nor music were mentioned. Speaking of music, it is highly noteworthy that none of the celebrated musical directors of Danish silent cinema made their way into the world of Danish sound feature film which soon found its way to success through popular comedies in a musical vein. The music and songs performed by - among others - the very popular Miss Marguerite Viby and Mr. Hans W. Pedersen played no small part in the popularity of the Danish films of the 30's\(^1\). The composers of sound film, such as the most popular of them all, Mr. Kai Normann Andersen, had (of course, one might add) drawn their previous experience from the revue (Lauridsen 1993a).

In its very first days Nordisk Tonefilm had made its films in small apartment studios in central Copenhagen but from the beginning of January 1929 the company moved into the unused silent film studios of the bankrupt Nordisk Film in Valby. In an interview Selmer Trane expressed the vision that his company might go into the production of "bigger assignments of a more weighty and dramatic nature" (Biograflajdet, April 1, 1929: 6). That was all he had to say about the dramatic feature film which - in Denmark - was going through a major crisis after the bankruptcy of Nordisk Film. Apart from three silent comedies with Fy og Bi (Long and Short) from the company Palladium no feature films were made in Denmark in 1929. In the USA, however, the dramatic film gained in importance as the short sound films, - from the fall of 1927 - the so called playlets entered the repertoire without ever dominating it\(^2\).

The point of comparing The Speaking Film and the production by Nordisk Tonefilm on the one hand and the production by Warner Bros. and Vitaphone on the other is the noticable difference in the explicit ideas about the use of sound and the actual practice that was to develop.

The American sound film first presented a program consisting of classical musical shorts combining it with a silent drama with synchronized music. Warner Bros. thought of the program in terms of radio, and in his introductory address Will Hays praised the new sound system for its ability to bring "symphony orchestration to the townhalls of the hamlets". It soon turned out, however, that Hays' discourse was of a more idealistic (or propagandist?) than realistic nature. American sound film was introduced to the general public by vaudeville art and artists rather than by classical music (whether it be the attraction of sound shorts or the synchronized score for feature films of which Warner Bros. produced very few compared to the output of...
vaudeville shorts).35

The Danish sound film first presented a program consisting of equal amounts of 'high' and 'low' culture. The opening address was serious in imagining that sound film would become used for political and journalistic purposes, but the mood of the program was as lighthearted as the vast majority of the 125 sound shorts produced by (A/S) Nordisk Talefilm. In Denmark, the regular production of sound shorts preceded the first, Danish sound feature film by three years.24

Comparing the vaudevillian shorts with the standard American or Danish feature film of the 1920's it becomes clear that cinema is not one, well defined object. It consists, rather, of a series of heterogeneous practices. Silent film and sound film were different as were the ways in which the two sorts of film were used and the ideas about their future potential.35

Sound-on-film, sound-on-disc, and other cinema sound systems.

The emergence of sound film saw the invention of numerous theatre sound reproducing systems. On the one hand they were the result of an economic struggle for markets. But their multiplicity was also the result of the various attempts to define the new media.

In 1930 The Film Daily Yearbook listed 103 different sound systems on the American market (Kahn 1930: 706-708), but according to Edward W. Kellogg there were "234 different types of theatre sound equipment including the large number which were designed for disk only" (Kellogg 1955: 357). No matter which of the figures - if any - is exact we are dealing with at least 100 systems more than the two (Warner Bros.' Vitaphone and Fox' Movietone) usually known - a knowledge that even disregards the RCA Photophone that eventually took over (Kellogg 1955). All 103 systems mentioned by The Film Daily Yearbook were either sound-on-film or sound-on-disc systems,26 many of which were only distributed locally.

The Film Daily Yearbook categorized the sound systems according to whether they were synchronous or non-synchronous. Some of the synchronous sound-on-disc systems could play the Vitaphone records with their new and epoch-making 33 1/3 rpm. as well as the standard 78 rpm, records. They could thus reproduce records not intended for cinematic use. Using, for instance, Remaphone that was publicly introduced in the beginning of November 1926 any theatre could compile its own incidental music using ordinary records at hand (Motion Picture News, November 13, 1926: 1846). Professional assistance was supplied by companies specialized in either delivering carefully planned incidental music on record27 or - in the manner of the cue sheet known in silent cinema since 190928 - in
recommending the music to be played for the individual film - and when to play it.

The non-synchronous systems all operated with the gramophone, as the sound reproducer enabled smaller theatres that could not afford to get wired to use recorded music on screenings. The numerous, non-synchronous systems varied as to the number of turntables, to whether these turntables could be used separately, to whether they were stationary or portable, and to whether one inaudibly and thus with no pauses in the music could switch between two gramophones and more (Kahn 1930: 507-509).

On a smaller scale the Danish market showed a similar multitude of sound reproducing systems.²⁹ It began with the synchronous system of Petersen & Poulsen, the first public demonstration of which took place in 1923. The rights for the system were bought in 1927 by Mr. Selmer Trane, who in May 1928 founded the company Nordisk Tonefilm to make use of the rights. After production had been moved to Valby in the beginning of 1929 the short Danish sound film was soon launched to the public: Five major, Copenhagen theatres (Palads, Kinopalaet, Colosseum, Rialto, and Kinografen) showed a program of Danish produced sound shorts opening on March 4, 1929. From August 1 that same year, three years after their introduction in the USA, American sound feature films could be seen and heard in Copenhagen. They were reproduced either by the original American equipment or by other systems such as that of Nordisk Tonefilm, which (like the Western Electric equipment from May 1927) reproduced sound-on-film as well as sound-on-disc.

In 1931 Bofa, a subsidiary of the Bang & Olufsen company (B&O) introduced yet another optical, Danish sound system for the recording and reproduction of film sound. Nordisk hung on to the system of Petersen & Poulsen, but when on November 11, 1932 the other Danish film production company, Palladium, introduced its first sound film, a remake of the 1922 Long & Short film Han, hun og Hamlet (He, She, and Hamlet) it was recorded on the Bofa system.

The story of Danish theatre sound systems is still more complicated. Partly because there were several, synchronous systems available, Danish (Clarion, Skovshoved Electronic, Pedersen & Jensen) and foreign (Western Electric, Cinephone, AEG Klangfilm), partly because the Danish market was open to non-synchronous theatre sound systems (Syncrotone, Ikophone, Electromophon, and Polyfar) that played recorded music in the theatres, alone or as a supplement to a piano player, or an orchestra.

In 1928 Biografbladet wrote enthusiastically about the Polyfar system that had been demonstrated in the Alexandra Theatre in Copenhagen. It was stressed that the motor was electric “so that one did not have to wind it up” (Biografbladet, August 15, 1928: 6). Amplification too was electric and the machine was even more interesting because the volume was infinitely variable. All these electric refinements were based on relatively new inventions endowing the machine with the aura of modernity and attraction that also belonged to sound film: “The machine not only contains [...] the latest gadgets within the field of the gramophone industry, it is furthermore up to date [English in the original] in its utilisation of the latest in radio” (ibid.). Describing the musical experience provided by Polyfar Biografbladet was satisfied: it was “surprisingly near to the original orchestra,” (ibid.) it was impossible to distinguish it from a piano and would provide some “variation within the accompaniment for film that is strongly needed in many places, and will be to the taste of the audience as it is possible to switch between solo numbers on various instruments, trios, quartets, smaller and larger orchestra, depending on the records at hand.” (Ibid.)

A new media

What was sound to be used for - and how? These questions were discussed in Denmark and in the USA at the end of the 1920’s. Verbal arguments were put forward but the production and screening of sound film provided other, practical arguments concerning the definition of the new media. The overall discourse on the subject was most contradictory.

As has been shown above, the signification of sound film for the journalistic and political process was eloquently emphasized (Breidahl) as was the signification of good music in improving public taste (Hays). The possibility of using recorded music could, however, become an argument for or against sound film. Hays was all for it in the USA, whereas the Danish Musicians’ Guild was against it in Denmark.

In considering both countries popular, non-dramatic, non-narrative forms of entertainment such as vaudeville were important in the introduction of sound film. Not of sound film as
feature film, but of **sound film as shorts** that were able to take the place in a theatrical presentation often already filled with silent shorts such as newsreels, musical entertainment or other forms of live entertainment. Not of sound film as narrative film but of sound film as the *cinema of attractions*.

The vaudeville shorts, however, disappeared in the 1930's: only commercial films, travelogues and news reels were kept alive, and animated shorts (cartoons) became popular. In return, feature films of the 1930's became strongly influenced by the songs and entertainment of the short films: comedies, musicals and the Marx Brothers.

The exhibitor who decided that his theatre was to present another kind of sound than the one delivered by the piano player or the orchestra of the silent era had to choose which sort of sound film he wanted. The cheapest solution - and the one most closely related to the traditional musical accompaniment of the theatres, a solution that was "up to date" and modern as well - was the non-synchronous version of the theatre gramophone. If on the other hand he acquired one of the numerous, synchronous systems he had the opportunity of compiling his repertoire in the way in which it - on the basis of existing supply - would please the patrons. Most synchronous systems could play the records as well as the various types of optical sound film at an early stage in the development of sound film.

Having been the first and initially most successful of the sound recording and reproducing systems sound-on-disc, however, gradually disappeared as sound-on-film proved more stable and technologically superior. Warner Bros. started using sound-on-film in the middle of 1930, and in the beginning of 1931 the company abandoned the disc-system all together (Lauridsen 1993b: 8). In June 1936 Warner Bros. took to using the RCA Photophone system (Kellogg: 357), and five years later, in 1941, the sound-on-disc films could not even be projected.51

Regarding the feature film *Biograflbladet* was wrong in claiming that sound film would not compete with silent film. Actually silent film was ousted within a few years. What happened was that sound film - for at least a period - redefined the concept of cinema itself. In that respect *Biograflbladet* was right in claiming that nobody "could imagine the characters talking in films like *The King of Kings* or *The Passion of Joan of Arc*" (*Biograflbladet*, August 15, 1928: 6). For a couple of years characters like that remained silent, as the all singing, all dancing, all talking characters depicted in the films made once the new media had become defined were quite different. As were the films.

The emergence of sound film called for many words, technologies, and practices. The discourse, technology, and practice best known are often the victorious ones and thus the ones most similar to recent standards. Writing the history of cinema one must, however, always try to grasp the multitude of intentions, inventions, and conventions.52 Doing so, as I have tried here on a small scale, one will find that the victor's history is in no way the only one that must be told.

**Literature**


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Notes

Axel Breidahl (1876-1948) was not just anybody. Apart from being a journalist and an editor at the national newspaper Politiken he functioned as an author and translator concentrating on lively, popular genres. Between 1911 and 1914 he was a script writer for Danish, Swedish, and German films. From 1905 onwards he performed as a master of ceremonies and as such he participated in one of the first Danish radio broadcasts on November 3, 1922. When on April 1, 1925 Government took control of radio he became a member of the board as a representative of the press. From 1919 to 1924 he was the chairman of Revyfarfatternes Forbund, the Vaudeville Writers' Guild.

My translation from the Danish soundtrack.

I use the term emergence (in accordance with Musser 1994) in order to suggest that sound film did not just occur suddenly out of the blue but that is was developed over a long period of time by several individual and corporate inventors in many parts of the world. The term also implies the fact that the cinematic practices of the emerging sound film were heterogenous.

I have take sides with - among others - Rick Altman (Altman 1992 and Altman 1995), Michel Chion (Chion 1995), Charles Musser (Musser 1994), and Tom Gunning (Gunning 1994).

My translation from the Danish soundtrack.

In the manner of a master of ceremonies, Breidahl gave the opening prologue, the closing epilogue, and the individual introduction to the six features of the program.

The cinema of attractions was so labeled by André Gaudreault and Tom Gunning. It is basically characterized by the direct mode of address and by the focalized attention: the pleasure on the part of the spectator is not suspended, postponed etc. like in narrative cinema, but focalized on what is happening at any given moment of the performance (cf. Gunning 1994).

Interest in early American sound film was boosted by the 1989 Museum of Modern Art (New York) exhibition on The Dawn of Sound. The program from the exhibition (Bandy 1989) contains valuable information on the first, commercially successful sound films. Personally, I have dealt in great detail with Warner Bros.' sound shorts (Lauridsen 1993b).

Opening with Hays' three minute address program contained nine shorts. Only one of them presented "popular" music.

Though he did not personally write the (in)famous auto-censorship of Hollywood of 1930, The Production Code, Hays was behind it.

The speech is reprinted in Bandy 1989: 17.

Referring back to the musical practice of the de luxe theatres of silent cinema (the practice of playing classical overtures and of compiling parts of well-known and popular classical compositions for the silent film score) chances are that this was exactly what Hays had in mind.

The Golden Age of Hollywood music is well described and analyzed, cf. for instance Gorbman 1987 and Kalinak 1992 for recent examples. Danish film music has not been the subject of specialized research but it can be stated that in the 1930's is was composed and performed by people from the world of light entertainment whereas composers and performers from 'serious music' had nothing to do with it. As Danish silent film music (more so in de luxe theatres with orchestras than in smaller theatres with just one piano player) relied heavily on the classical musical tradition, the rupture between Danish silent film music and Danish sound film music was considerable (Lauridsen 1993a and Lauridsen 1994).

Nordisk Tonefilm was founded in March 1928 in order to exploit the recently acquired rights for Petersen & Poulsen's sound system. Production was inaugurated in September 1928. The company must not be confused neither with Nordisk Films Kompagni that was founded in 1906 and went bankrupt in 1928, nor with Nordisk Films Kompagni af 1929.
founded on the ruins (including the film laboratory and the studios in the Copenhagen suburb of Valby) of the bankrupt company. In January 1929 the sound short producing company, i.e. Nordisk Tonefilm, rented the studios of the dormant Nordisk Films Kompagni of 1929, and in October 1929 the two companies merged into A/S Nordisk Tonefilm. In 1935 the company adopted the 'original' name, Nordisk Films Kompagni.

15 I reach the figures presented here by consulting the Vitaphone Release Schedule, "a catalogue for exhibitors published in the form of loose-leaf binders, so new pages could be added as shorts were produced and made available for broad distribution" (Bandy 1989: 44). By consulting the release schedule that was published from summer of 1928, distributors were able to compile the program of shorts thought suitable for their respective audiences (cf. Lauridsen 1993b: 24-32).

16 The company left that for the Fox Movietone company that was to become the news pioneer of early sound short film.

17 A few quotes from Variety from 1926 and 1927 may further indicate the close connections between the Vitaphone shorts and vaudeville. The review of the second Vitaphone program calls it 'Better than vaudeville' (Variety, October 13, 1926: 1), later Vitaphone related subjects are discussed in the Vaudeville section (Variety, February 9, 1927: 21), and when opening a special section for Vitaphone reviews it is noted that "owing to Variety's reviewers' familiarity with pictures and vaudeville [...] the Vita reviews will attempt to cover the unit and its complement in full" (Variety, March 23, 1927: 14. Italics added). Jenkins (1992) examines the meeting between the narrative tradition of the Hollywood feature film and the non-narrative tradition brought into early sound film by vaudevillians like the Marx Brothers.

18 In an add Vitaphone boasts of 400 Vitaphone Acts featuring among others "the world's greatest Radio and Vaudeville Stars" (Variety, July 1, 1928: 21).

19 I reach this conclusion by comparing information given by Nørregård (n.d.) and Engberg (1982).

20 Biografbladet (The Movie Theatre Magazine) was published by Fællesrepræsentationen for Biografteatre i Danmark, The Joint Representation of Moving Picture Theaters in Denmark, and was thus the voice of the exhibitors.

21 Hans W. Petersen and Marguerite Vihy presented themselves as representatives of modern, urban carelessness. They were not just movie stars, but rather multimedia-talents who sang, danced, and acted in revue, on records, on the radio, and in the movies (Schou 1995). During the 1930's four to five percent of the films in Danish movie theatres were Danish. These films, however, provided 30 percent of the box-office revenues. In order not to result in a deficit each Danish film had to sell around 600,000 tickets (Dinnesen & Kau 1983: 148). A considerable amount in a country with a 3.5 million population.

22 With a monthly frequency of no more than three, Warner Bros. produced one, two, or three reel playlets. 57 of the total 1473 shorts listed in the Vitaphone Release Schedule were playlets (Lauridsen 1993b: 24-32).

23 During the period between August 6, 1926 and the opening of The Jazz Singer on October 6, 1927 Vitaphone produced 220 sound shorts at the least (Lauridsen 1993b: 6). As mentioned above, Nordisk produced 125 sound shorts between September 1928 and the opening of their first sound feature on May 7, 1931: sound shorts were indeed important in the introduction of sound. The Jazz Singer was the sixth of Vitaphone's sound feature films, but the first one to really introducing diegetic sound. The film can be thought of as a hybrid between a silent drama and a series of sound shorts starring Al Jolson (Wolfe 1990: 67).

24 The first foreign sound films to be shown in Denmark were American. On August 1, 1929 Fox Follies opened and a few weeks later Show Boat and The Singing Fool followed. The foreign feature films that made Denmark for sound were of a singing, dancing, and musical nature.

25 David Bordwell notes that "sound technique on the whole was brought into conformity with silent filmmaking norms" (Bordwell, Staiger & Thompson 1985: 301). However true this might be if one concentrates on the style and mode of production of the period it is false of from a pragmatic point of view as the one suggested here.

26 Except for one, Moviphone, that was an early, magnetic sound-on-wire system.

27 Under the heading Sound Buying Guide Kahn (1930: 511) lists 11 of these Record Cuing Services.


29 The following account of sound reproducing systems in Denmark is based on contemporary articles in Biografbladet, on Dinnesen & Kau (1983), and on Nørregård (n.d.).

30 Disney’s “Steamboat Willie” was the first sound cartoon (September 18, 1928) but soon other companies presented cartoons. For example, the first Warner Bros. sound cartoon, “Sinkin’ in the Bath Tub,” opened on May 6, 1930 (Friedwald 1981: xiii).

31 Introducing a series of talking films in 1941 Iris Barry, curator of The Museum of Modern Art Film Library, wrote: "Either the machinery for running them [sound-on-disc films] no longer exists, or unequal degrees of shrinkage in visuals and sound track (often separate then) preclude synchronization today" (quoted in Koszarski 1989: 15).

32 Cf. Gomery 1977 which contrasts the failure of Voptim (1926-1929) - one of the many losers of the battle for sound film markets in the USA - with the success of RCA Photophone, the victor of that battle.