Projected motion picture photography became a reality in the 1890s, but the dream of throwing moving pictures on a screen stretched back at least three centuries. Various European inventors described and created "magic lanterns" (primitive slide projectors) as early as the mid-seventeenth century. But not until the early nineteenth century did Peter Mark Roget and others seriously consider the principle of persistence of vision, a concept fundamental to all moving pictures, drawn or photographed.

In the 1870s and 1880s several scientists engaged in the investigation of animal and human movement turned to photography as a research tool. The most important of these, Etienne Jules Marey of France and Eadweard Muybridge, an Englishman living in America, created varieties of protocinema that greatly advanced visual time-and-motion study. They also inspired inventors around the world to try their hand at constructing devices capable of producing the illusion of motion photography. Most of these inventors, including Thomas Edison, took up motion picture work for quite a different reason than Marey and Muybridge: the lure of a profit-making commercial amusement.¹

Early film historians and journalists chose to perpetuate and embellish the legend of Edison's preeminence in the development of motion pictures. In fact, as the painstaking and voluminous research of Gordon Hendricks has shown, the true credit for the creation of the first motion picture camera (kinetograph) and viewing machine (kinetoscope) belongs to Edison's employee, W. K. L. Dickson. Between 1888 and 1896, Dickson was "the center of all Edison's motion picture work during the crucial period of its technical perfection, and when others were led to the commercial use of the new medium, he was the instrument by which the others brought it into function." Edison himself admitted in 1895 that his reason for toying with motion pictures was "to devise an instrument which should do for the eye what the phonograph does for the ear"; however, his interest in motion pictures always remained subordinate to his passion for the phonograph.²

With the perfection of a moving picture camera in 1892, and the subsequent invention of the peep hole kinetoscope in 1893, the stage was set for the modern film industry. Previewed at the Columbian Exposition in Chicago during the summer of 1893, the kinetoscope could handle only one customer at a time. For a penny or a nickel in the slot, one could watch brief, unenlarged 35-mm black-and-white motion pictures. The kinetoscope provided a source of inspiration to other inventors; and, more importantly, its successful commercial exploitation convinced investors that motion pictures had a solid financial future. Kinetoscope parlors had opened in New York, Chicago, San Francisco, and scores of other cities all over the country by the end of 1894. The kinetoscope spread quickly to Europe as well, where Edison, revealing his minimal
commitment to motion pictures, never even bothered to take out patents. 3

At this time the Dickson-Edison kinetograph was the sole source of film subjects for the kinetoscopes. These early films were only fifty feet long, lasting only fifteen seconds or so. Beginning in 1893 dozens of dancers, acrobats, animal acts, lasso throwers, prize fighters, and assorted vaudevillians traveled to the Edison compound in West Orange, New Jersey. There they posed for the kinetograph, an immobile camera housed in a tarpaper shack dubbed the "Black Maria," the world's first studio built specifically for making movies. 4

Although it virtually disappeared by 1900, the kinetoscope provided a critical catalyst to further invention and investment. With its diffusion all over America and Europe, the competitive pressure to create a viable motion picture projector, as well as other cameras, intensified. During the middle 1890s various people worked furiously at the task. By 1895, in Washington, D.C., C. Francis Jenkins and Thomas Armat had discovered the basic principle of the projector: intermittent motion for the film with a period of rest and illumination in excess of the period of movement from frame to frame. In New York, Major Woodville Latham and his two sons, along with Enoch Rector and Eugene Lauste, contributed the famous Latham loop, which allowed the use of longer lengths of film. William Paul successfully demonstrated his animatograph projector in London in early 1896. The Frenchmen Auguste and Louis Lumiere opened a commercial showing of their cinematograph in Paris in late 1895—a remarkable combination of camera, projector, and developer all in one. W. K. L. Dickson and Herman Casler perfected their biograph in 1896, clearly the superior projector of its day and the foundation for the American Mutoscope and Biograph Company. 5

Once again, the name of Edison is most closely associated in the popular mind with the invention of the first projection machine. Actually, the basis of the Edison Vitawoscope, first publicly displayed in New York on 24 April 1896, was essentially the projector created by Thomas Armat. The Edison interests persuaded Armat "that in order to secure the largest profit in the shortest time it is necessary that we attach Mr. Edison's name in some prominent capacity to this new machine. ... We should not of course misrepresent the facts to any inquirer, but we think we can use Mr. Edison's name in such a manner as to keep with the actual truth and yet get the benefit of his prestige." 6

With the technology for the projection of motion pictures a reality, where were they to be shown? Between 1895 and 1905, prior to the nickelodeon boom, films were presented mainly in vaudeville performances, traveling shows, and penny arcades. Movies fit naturally into vaudeville; at first they were merely another novelty act. Audiences literally cheered the first exhibitions of the vitawoscope, biograph, and cinematograph in the years 1895 to 1897. But the triteness and poor quality of these early films soon dimmed the novelty and by 1900 or so vaudeville shows used films mainly as chasers that were calculated to clear the house for the next performance. Itinerant film exhibitors also became active in these years, as different inventors leased the territorial rights to projectors or sold them outright to enterprising showmen. From rural New England and upstate New York to Louisiana and Alaska, numerous visitors made movies a profitable attraction in theaters and tent shows. Finally, the penny arcades provided the third means of exposure for the infant cinema. Aside from their use of kinetoscopes, arcade owners quickly seized on other possibilities. Arcade patrons included a hard core of devoted movie fans, who wandered from place to place in search of films they had not seen yet. Some arcade owners bought, rented, or built their own projectors; they then partitioned off part of the arcade for screening movies. They acquired films from vaudeville managers who discarded them. 7

The combination of the new audience and a growing class of profit-minded small entrepreneurs
resulted in the explosion of store theaters (nickelodeons) after 1905. A supply of film subjects and equipment was necessary to meet the demand, and the first of several periods of wildcat development ran from 1896 to 1909. The three pioneer companies of Edison, Vitagraph, and Biograph in effect controlled the production of motion picture equipment, but a black market quickly developed. Each company that sprang up in these years became a manufacturer of instruments in addition to producing films. Many firms had long lists of patent claims, each arguing that it had a legal right to do business. Aside from the few real inventors and holders of legitimate patents, a good deal of stealing and copying of equipment took place. Lawsuits ran a close second to movies in production priorities. In 1909 the ten major manufacturers finally achieved a temporary peace with the formation of the Motion Picture Patents Company, a patent pooling and licensing organization. In addition to granting only ten licenses to use equipment and produce films, the Patents Company created the General Film Exchange to distribute films only to licensed exhibitors, who were forced to pay a two dollar weekly fee. The immediate impetus for this agreement, aside from the desire to rationalize profits, offers one clue as to how early motion pictures became a big business. Edison and Biograph had been the main rivals in the patents struggle, and the Empire Trust Company, holder of two hundred thousand dollars in Biograph mortgage bonds, sent J. J. Kennedy (an executive and efficiency expert) to hammer out an agreement and save their investment.\footnote{By 1909 motion pictures had clearly become a large industry, with three distinct phases of production, exhibition, and distribution; in addition, directing, acting, photography, writing, and lab work emerged as separate crafts. The agreement of 1909, however, rather than establishing peace, touched off another round of intense speculative development, because numerous independent producers and exhibitors openly and vigorously challenged the licensing of the Patent Company.}

In 1914, after five years of guerrilla warfare with the independents, the trust lay dormant; the courts declared it legally dead in 1917. Several momentous results accrued from the intense battle won by the innovative and adventurous independents. They produced a higher quality of pictures and pioneered the multi reel feature film. Under their leadership Hollywood replaced New York as the center of production, and the star system was born. At the close of the world war, they controlled the movie industry not only in America, but all over the globe.\footnote{Of all the facets of motion picture history, none is so stunning as the extraordinarily rapid growth in the audience during the brief period between 1905 and 1918. Two key factors, closely connected, made this boom possible. First, the introduction and refinement of the story film liberated the moving picture from its previous length of a minute or two, allowing exhibitors to present a longer program of films. One-reel westerns, comedies, melodramas, and travelogues, lasting ten to fifteen minutes each, became the staple of film programs until they were replaced by feature pictures around World War I. George Melies, Edwin S. Porter (The Great Train Robbery, 1903), and D. W. Griffith, in his early work with Biograph (1908 to 1913), all set the pace for transforming the motion picture from a novelty into an art. Secondly, the emergence of the nickelodeon as a place devoted to screening motion pictures meant that movies could now stand on their own as an entertainment. These store theaters, presenting a continuous show of moving pictures, may have begun as early as 1896 in New Orleans and Chicago. In 1902 Thomas Tally closed down his penny arcade in Los Angeles and opened the Electric Theater, charging ten cents for “Up to Date High Class Moving Picture Entertainment, Especially for Ladies and Children.” But the first to use the term \textit{nickelodeon} were John P. Harris and Harry Davis, who converted a vacant store front in Pittsburgh in late 1905.}

News of their success spread quickly and spawned imitators everywhere. All over America
adventurous exhibitors converted penny arcades, empty store rooms, tenement lofts, and almost any available space into movie theaters. Because no official statistics remain from those years, we must rely on contemporary estimates. By 1907 between three and five thousand nickelodeons had been established, with over two million admissions a day. In 1911 the Patents Company reported 11,500 theaters across America devoted solely to showing motion pictures, with hundreds more showing them occasionally; daily attendance that year probably reached five million. By 1914 the figures reached about 18,000 theaters, with more than seven million daily admissions totaling about $300 million.

All of the surveys of motion picture popularity, and indeed a large fraction of all discussions of the new medium, placed movies in a larger context of urban commercial amusements. Movies represented "the most spectacular single feature of the amusement situation in recent years," a situation that included penny arcades, dance academies and dance halls, vaudeville and burlesque theaters, poolrooms, amusement parks, and even saloons. Motion pictures inhabited the physical and psychic space of the urban street life. Standing opposite these commercial amusements, in the minds of the cultural traditionalists, were municipal parks, playgrounds, libraries, museums, school recreation centers, YMCAs, and church-sponsored recreation. The competition between the two sides, noted sociologist Edward A. Ross, was nothing less than a battle between "warring sides of human nature—appetite and will, impulse and reason, inclination and ideal." The mushrooming growth of movies and other commercial amusements thus signaled a weakness and perhaps a fundamental shift in the values of American civilization. "Why has the love of spontaneous play," wondered Reverend Richard H. Edwards, "given way so largely to the love of merely being amused?"

For those who spoke about "the moral significance of play" and preferred the literal meaning of the term recreation, the flood of commercial amusements posed a grave cultural threat. Most identified the amusement situation as inseparable from the expansion of the city and factory labor. Referring to the enormous vogue of the movies in Providence, Rhode Island before World War I, Francis R. North noted the "great alluring power in an amusement which for a few cents . . . can make a humdrum mill hand become an absorbed witness of stirring scenes otherwise unattainable, a quick transference from the real to the unreal."

Commercial amusements tempted rural folk as well, and some writers argued that "the young people coming from the country form the mainstay of the amusement resorts." Frederick C. Howe warned in 1914 that "commercialized leisure is moulding our civilization—not as it should be moulded but as commerce dictates. . . . And leisure must be controlled by the community, if it is to become an agency of civilization rather than the reverse."

A scientific assessment of the situation, as attempted by the myriad of recreation and amusement surveys of the early twentieth century, seemed a logical first step. Beyond this, the drive for municipal supervision of public recreation and commercial amusements fit comfortably into the Progressive ethos of philanthropists, social workers, and urban reformers all over America. "In a word," asserted Michael M. Davis of the Russell Sage Foundation in 1912, "recreation within the modern city has become a matter of public concern; laissez faire, in recreation as in industry, can no longer be the policy of the state."

What actually transpired in and around the early nickelodeons varied from theater to theater and city to city. On the whole they do not seem to have been an especially pleasant place to watch a show. A 1911 report made on moving picture shows by New York City authorities disclosed that "the conditions found to exist are such as to attach to cheap and impermanent places of amusement, to wit: poor sanitation, dangerous overcrowding, and inadequate protection from fire or panic." Despite the foul smells, poor ventilation, and frequent breakdowns in projection,
investigators found overflow crowds in a majority of theaters. Managers scurried around their halls, halfheartedly spraying the fetid air with deodorizers and vainly trying to calm the quarrels and shoving matches that commonly broke out over attempts to better one's view. The overall atmosphere was perhaps no more rowdy or squalid than the tenement home life endured by much of the audience; but the nickelodeons offered a place of escape for its eager patrons.

The darkness of the nickelodeon theater, argued some doctors and social workers, caused eye strain and related disorders: "Intense ocular and cerebral weariness, a sort of dazed 'good-for-nothing' feeling, lack of energy, or appetite, etc.," as one physician put it. The health problem melted into a moral one, as critics condemned the darkness. Declared John Collier at a child welfare conference, "It is an evil pure and simple, destructive of social interchange, and of artistic effect." Jane Addams observed that "the very darkness of the theater is an added attraction to many young people, for whom the space is filled with the glamour of love-making." Darkness in the nickelodeon reinforced old fears of theaters as havens for prostitutes and places where innocent girls could be taken advantage of. John Collier asked: "Must moving picture shows be given in a dark auditorium, with all the lack of social spirit and the tendency to careless conduct which a dark auditorium leads to?"

If the inside of the theaters was seamy, the immediate space outside could be severely jolting. Gaudy architecture and lurid, exaggerated posters were literally "a psychological blow in the face," as one writer put it. Sensational handbills, passed out among school children, vividly described movies such as Temptations of a Great City: "Wine women and gayety encompass his downfall. Sowing wild oats. See the great cafe scene, trap infested road to youth, and the gilded spider webs that are set in a great city after dark." Phonographs or live barkers would often be placed just outside the theater, exhorting passers-by to come in. Inside, the nickelodeon program varied from theater to theater. An hour-long show might include illustrated song slides accompanying a singer, one or more vaudeville acts, and an illustrated lecture, in addition to several one-reelers. But movies were the prime attraction.

In the summer of 1909, while strolling in a provincial New England town, economist Simon Patten found the library, church, and schools, "the conserving moral agencies of a respectable town," all closed. In contrast to this literally dark side of town, Patten described the brighter side where all the people were. Alongside candy shops, fruit and nut stands, and ice cream parlors, Patten noted the throngs at the nickel theater:

Opposite the barren school yard was the arcaded entrance to the Nickelodeon, finished in white stucco, with the ticket seller throned in a chariot drawn by an elephant trimmed with red, white and blue lights. A phonograph was going over and over its lingo, and a few machines were free to the absorbed crowd which circulated through the arcade as through the street. Here were groups of working girls—now happy "summer girls"—because they had left the grime, ugliness, and dejection of their factories behind them, and were freshened and revived by doing what they liked to do.

Here the contrast was more than symbolic. Like many others, Patten warned that the traditional cultural institutions needed to adapt quickly in the face of movies and other commercial amusements. They could compete only by transforming themselves into active and "concrete expressions of happiness, security, and pleasure in life."

As for the nickelodeon program itself, everyone concurred that vaudeville was "by far the most pernicious element in the whole motion picture situation." Early projected motion pictures had found their first home in vaudeville houses during the 1890s. But with the rise of theaters devoted to motion pictures, the situation reversed itself. Exhibitors across the nation added vaudeville acts to their film shows as a novelty for attracting patronage in a highly competitive business. Not all movie houses included vaudeville
acts on the bill; local demand, availability of talent, and other conditions dictated the exact format of the show. But vaudeville became enough of a commonplace in American nickelodeons for observers to agree that it was the most objectionable feature of them. Particularly in immigrant ghettos, where ethnic vaudeville remained popular until the 1920s, reformers feared the uncontrolled (and uncensorable) quality of the live performance. The singers, dancers, and dialect comics of vaudeville appalled and frustrated those who were struggling to regulate the burgeoning nickelodeon movement.

The mayor's committee in Portland, Oregon complained in 1914, for example, about the numerous shows “where decent and altogether harmless films are combined with the rankest sort of vaudeville. There is a censorship upon the films, but none at all on male and female performers, who in dialog, joke, and song give out as much filth as the audience will stand for.” In 1910 an Indianapolis civic committee denounced the vaudeville performances in local movie theaters as unfit for any stage: “Almost without exception the songs were silly and sentimental and often sung suggestively.” Robert O. Bartholomew, the Cleveland censor of motion pictures, could not believe some of the things he witnessed in that city’s nickelodeons in 1913:

Many verses of different songs have been gathered which would not bear printing in this report. Dancers were often seen who endeavored to arouse interest and applause by going through vulgar movements of the body. . . . A young woman after dancing in such a manner as to set off all the young men and boys in the audience in a state of pandemonium brought onto the stage a large python snake about ten feet long. The snake was first wrapped about the body, then caressed and finally kissed in its mouth." 18

Nickelodeon vaudeville was usually cheap, almost impossible to regulate, and socially objectionable—to the authorities, if not to the audience. As a result, police harassment and stricter theater regulations were employed all over the country to exclude vaudeville from movie houses. By 1918 nearly all movie exhibitors had responded to external pressure and internal trade opinion by eliminating vaudeville. They were forced to concede what one exhibitor had written in a trade paper in 1909, that “a properly managed exclusive picture show is in a higher class than a show comprised partly of vaudeville.” 19

In every town and city the place of exhibition proved the most vulnerable point of the industry, a soft underbelly for critics to attack. New York’s experience between 1908 and 1913 provides a rough historical model for what transpired all over the country as cultural traditionalists sought to control the sphere of exhibition. By 1908 over five hundred nickelodeons had appeared in New York, a large proportion of them in tenement districts. A city ordinance required only a twenty-five dollar license for theaters with common shows (movies were so designated) that had a capacity below three hundred; the regular theater license of five hundred dollars was well above the means of average exhibitors, so they made certain that their number of seats remained below three hundred. At a stormy public meeting on 23 December 1908, prominent clergymen and laymen urged Mayor George McClellan to close the nickelodeons for a variety of reasons. These included violation of Sunday blue laws (the busiest day for the nickelodeon trade), safety hazards, and degradation of community morals. “Is a man at liberty,” demanded Reverend J. M. Foster, “to make money from the morals of people? Is he to profit from the corruption of the minds of children?” The next day Mayor McClellan revoked the licenses of every movie show in the city, some 550 in all.

On Christmas day, exhibitors, film producers, and distributors responded by meeting and forming the Moving Picture Exhibitors Association, with William Fox as their leader. The movie men successfully fought the order with injunctions, but the message was clear: some form of regulation was necessary. Marcus Loew began to ask various civic bodies for names of potential inspectors to investigate the theaters. It took several years,
however, for New York to enact the first comprehensive law in the United States regulating movie theaters. The 1913 legislation included provisions for fire protection, ventilation, sanitation, exits, and structural requirements. Seating limits increased from three hundred to six hundred to provide exhibitors more funds for making improvements. Significantly, all vaudeville acts were banned from movie houses unless they met the stiffer requirements of regular stage theaters.²⁰

NOTES


10. Tally’s advertisement reproduced in MacGowan, Behind the Screen, p. 128; Hampton, History, pp. 44–46; Jacobs, Rise, pp. 52–63.

11. I have compiled these figures from several sources, using the more conservative estimates where there is conflict. 1907: Joseph M. Patterson, “The Nickelodeon,” Saturday Evening Post 180 (23 November 1907): 10; “The Nickelodeon,” Moving
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17. Ibid., p. 28.

CHAPTER 23

Movies Talk
Scott Eyman

Scott Eyman is the book editor of the Palm Beach Post and the author of five books of film scholarship, including biographies of Mary Pickford, Ernest Lubitsch, and Louis B. Mayer.

It is the muggy afternoon of August 30, 1927. On the newly constructed soundstage of the Warner Bros. Studio on Sunset Boulevard, Al Jolson is industriously, unwittingly, engaged in the destruction of one great art and the creation of another.

The scene: a son's homecoming. The man universally recognized as the greatest entertainer of his day is singing Irving Berlin's "Blue Skies" to Eugénie Besserer, playing his mother. After an initial chorus sung with Jolson's usual nervy bravura, he suddenly stops. He asks his mother if she likes the song, tells her he'd rather please her than anybody. The floodgates open and the hilarious babbling begins:

"Mama, darlin', if I'm a success in this show, well, we're gonna move from here. Oh yes, we're gonna move up in the Bronx. A lot of nice green grass up there and a whole lot of people you know. There's the Ginsbergs, the Guttenbergs, and the Goldbergs. Oh, a whole lotta Bergs, I don't know 'em all.

"And I'm gonna buy you a nice black silk dress, Mama. You see Mrs. Friedman, the butcher's wife, she'll be jealous of you . . . Yes, she will. You see if she isn't. And I'm gonna get you a nice pink dress that'll go with your brown eyes . . ."

While the crew stands transfixed, Jolson keeps talking, a torrent of unaccustomed words in the midst of a predominantly silent film, a medium that has proudly subsisted on pantomime or, at the most, synchronized underscoring, sound effects, and a laconic word or two.