

# The legion of the condemned - why American silent films perished

David Pierce

**O**f the approximately 10,000 feature films and countless short subjects released in the United States before 1928, only a small portion survive. While some classics exist and are widely available, many silent films survive only in reviews, stills, posters and the memories of the few remaining audience members who saw them on their original release.<sup>1</sup>

Why did most silent films not survive the passage of time? The current widespread availability of many titles on home video, and the popularity of silent film presentations with live orchestral accompaniment might give the impression that silent films had always been held in such high regard. Instead, for many decades after the coming of sound, silent films had all the commercial appeal of last week's weather report.

This article will explore the factors that contributed to the loss of such a large number of silent films in a seemingly random fashion. There is no single villain: an unstable storage medium and an extended period of no commercial value were contributing, but not decisive, factors. The loss of most silent films resulted from shortsighted decisions by their owners and a combination of happenstance and neglect.

## Not many copies in existence

Although it might seem remarkable that not a single

print survives for most silent films, usually there were not many copies to begin with. While newspapers or magazines were printed and sold by the thousands, relatively few projection prints were required for even the most popular silent films. In the earliest days of the industry, producers sold prints, and measured success by the number of copies sold. By the feature period, beginning around 1914, copies were leased to subdistributors or rented to exhibitors, and the owners retained tight control. The distribution of silent features was based on a staggered release system, with filmgoers paying more to see a film early in its run. Films opened in downtown theatres, moved to neighbourhood theatres and finally to rural houses. This process was controlled by a system of clearances that dictated rentals and when a picture would be available to each class of theatres. In the 1920s, a film would normally require two years to work its way from

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premiere to final performance. Since the prints were in continuous use, this demand could be satisfied by a modest number of copies. In 1926, Paramount was making 150 prints for domestic release and an additional 50 copies for foreign use.<sup>2</sup>

Periodically, prints would be returned to the distributor for repair. Inspectors would fix splices and torn sprockets, sometimes cannibalising several prints to create one showable copy. By the end of their run, pictures would be circulating to theatres that changed their program every day, in prints that were often in very poor condition. Exhibitors were constantly complaining about the poor condition of the copies they received. A small town theatre running MGM's *Show People* (1928) was typical: 'We were rather surprised at getting a poor print after paying the golden price we did. Parts of it were quite rainy and scratched.' Theatres learned to expect well-worn prints, as with a complaint about *Our Dancing Daughters* (MGM, 1928): 'Naturally we would draw a slovenly inspected print for a night when we had a houseful of particular and critical people.'<sup>3</sup>

### Most remaining prints were destroyed

Regardless of the number of prints, almost all of them shared the same fate. The value of a film declined rapidly following its opening engagement. Producers wrote off the production cost of their films quickly, usually by 90 per cent in the first year. Rental for a feature might be \$3,000 per week for the first run in a downtown theatre, and bottom out at \$10 per day by the end of its run. After theatres no longer wanted a film, the only residual value for the heavily worn prints was the silver content of the celluloid.<sup>4</sup>

In *Suds* (UA, 1920), Mary Pickford saves an old horse from its fate at the glue factory. In real life, Pickford and her contemporaries ensured that all excess copies of *Suds* and their other films were accounted for and sent to their cinematic doom. In 1918, Kodak established a silver recovery centre in Rochester, New York, to process junk prints. Silver salvage of excess projection prints served two purposes: certifying destruction of the copies, while returning a final sliver of income to the owner. United Artists was a typical Kodak customer when they cleared out some of the older Mary Pickford

releases from their distribution depots in 1925. United Artists sent 130 well-worn prints of *Suds* (1920), *Little Lord Fauntleroy* (1921), *Rosita* (1923) and other older Pickford titles to Rochester. The resulting income was a modest, but undoubtedly welcome, \$302.74.<sup>5</sup>

After a film was no longer in active distribution, the studio would retain the original negative, the original work print and a projection print or two. Other than a copy for the studio library, these materials were usually stored outside California, because that state taxed old and new negatives on their full production cost. As a consequence, negatives were shipped to the east coast upon completion and most release prints were manufactured by laboratories in New York and New Jersey. Storage vaults for studios, laboratories and private storage companies were located throughout Manhattan, Brooklyn, the Bronx and Queens and in northern New Jersey at Fort Lee, Bound Brook, Little Ferry and Woodridge.

### Destroyed for legal reasons

When these materials were pulled from storage, it was more likely for inspection or destruction than for preservation. When a film was sold to another company for a remake, the contract often required that all copies of the original be destroyed, with the occasional exception of a reference print. Paramount sold George Melford's *The Unknown* (1915) to Universal, agreeing 'to destroy the negative ... and all prints thereof in possession of the seller, except one print which the seller shall retain for library purposes'. Mary Pickford's *Little Annie Rooney* (UA, 1925), remade with Shirley Temple, still exists despite such a clause. Other titles were not so lucky.<sup>6</sup>

Some story contracts obligated the producer to destroy the negative at the end of the license period to leave the author free to make a new agreement. The agreement with novelist Rafael Sabatini for King Vidor's *Bardelys the Magnificent* (1926) with John Gilbert required that 'at final determination of contract, [MGM] must destroy all negatives and positives and render statement or proof thereof to owner'.<sup>7</sup>

### Little perceived value

Before the introduction of sound, some older films retained value as a small number of reissues could be offered to theatres along with new releases. Independent producers lacking new films to offer with their old ones found that their old films were not in demand. Thomas H. Ince had been a successful independent producer before his death in 1924, and his estate was actively trying to realise as much income from his old films as possible. In 1928, a prospective reissue distributor wrote the Ince estate that:

In view of the cost of preparing a series of reissues for the market and the expenses of selling, the outright purchase of a reissue is almost out of the question. Charles Ray, Dorothy Dalton and Enid Bennett pictures do not mean much on the market, unless the pictures themselves were outstanding specials in their time.<sup>8</sup>

Once silent film theatres converted to sound or closed, silent films lost their audience and became worthless. *Civilization* was a big success in 1916. Anxious for income from a reissue distributor, the Ince estate sold the film outright in 1929 for \$750. Reissues were rare, so the only remaining value of most pictures was their remake potential. In 1930, the Ince estate sold a group of eight Charles Ray films at \$500 each, and in 1932 managed to get \$1,000 for Henry King's 1919 hit *23½ Hours Leave* from its star Douglas MacLean. Other independents had more success, though the US\$40,000 price that *Tol'able David* fetched in 1930 was for the story, not the 1920 film that came with it.<sup>9</sup>

The assets of the failed Triangle Film Corporation included rights to as many as 2500 films and stories. The films included productions from 1915 to 1917 that were supervised by D.W. Griffith and Thomas H. Ince and Mack Sennett, with stars Douglas Fairbanks, Norma Talmadge, William S. Hart and Gloria Swanson. The library sold at bankruptcy auction in 1924 for \$55,000. By 1937, three owners later, the films and stories were purchased for a rock bottom \$5,000.<sup>10</sup>

After leaving Triangle in 1917, Mack Sennett was a prolific independent producer of shorts and

occasional features, but by 1933 his company was bankrupt. The inventory of prints and negatives was sold at auction to a speculator for \$875, which was about the value of the silver salvage, while Sennett purchased the copyrights for \$75. In 1939 Warner Bros. released a two-reel condensation of Mack Sennett's *A Small Town Idol* (1921), and Jack L. Warner weighed purchasing the Sennett material outright. A studio attorney wrote to his counterpart in New York: 'I understand the picture is doing well, and thus J.L.'s desire to make this present deal.'<sup>11</sup>

In 1940, Warner Bros. bought all rights and materials to the Sennett comedies, acquiring nine tons of nitrate negatives and prints for \$10,000. The 330 properties included the original negatives to *Yankee Doodle in Berlin* (1919), *The Shriek of Araby* (1923) with Ben Turpin in a spoof of Rudolph Valentino, and three features starring Mabel Normand: *Molly O'* (1921), *Suzanna* (1922) and *The Extra Girl* (1923). This footage was used to produce a handful of additional Warner Bros. shorts.<sup>12</sup>

### Storage costs

An inactive film library requires a lot of storage space, but that was not usually a problem for studios that could use their own film vaults or rely on laboratories. Companies generally continued to hold their silent material until they had to pay storage fees or began to run out of room. RKO Radio Pictures stored their negatives and prints in vaults in Albany, New York. This included the films produced by RKO's predecessor companies, R-C Pictures Corporation and FBO Pictures. Reportedly, after the company ceased production in 1957 and sold its production lot in Los Angeles, RKO periodically destroyed silent negatives whenever they needed shelf space for reissue and television prints.

The situation was different for independents who kept their negatives and prints in laboratories or commercial storage facilities. Following the introduction of sound, owners began to question why they were paying storage fees on films that would probably never again provide any income. In 1930, Lloyds Film Storage in New York was charging 20 cents per reel per month for storage. The owner of a seven-reel silent feature would be paying \$35 per year in storage fees for an asset with virtually no earning potential. Many owners junked

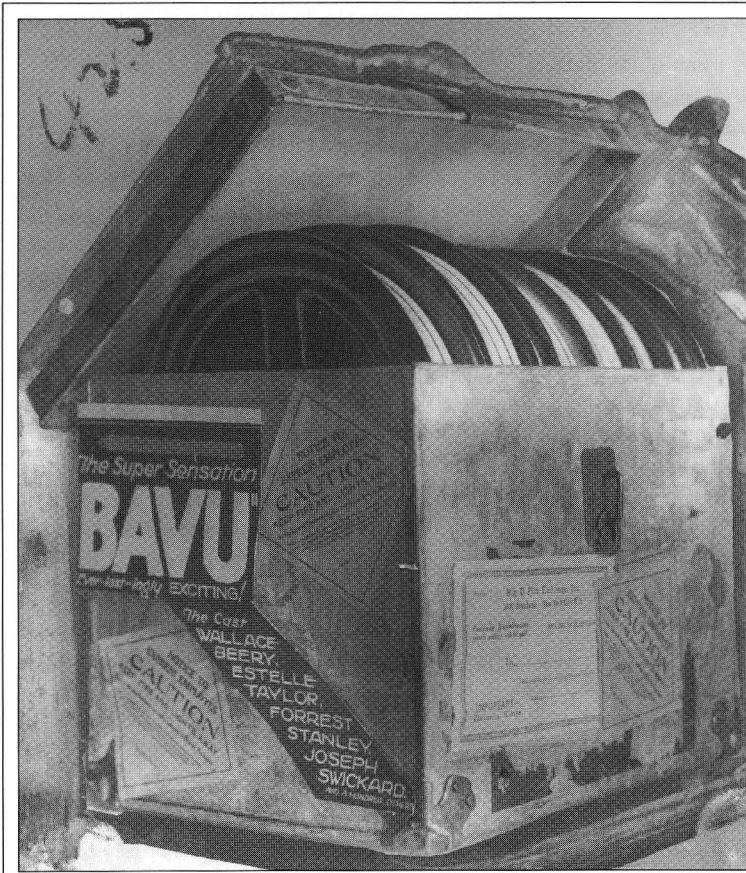


Fig. 1. Silent features like *Bavu* (Universal, 1923) were shipped via railway express in bulky tin boxes, plastered with stickers reading 'Notice to Express Employees/CAUTION/Keep Fire and Lights Away'. Universal destroyed the negative of *Bavu* and hundreds of other silents in 1948. [Richard Koszarski Collection.]

their materials, or simply stopped paying storage charges.<sup>13</sup>

### Intentional destruction

Numerous owners evaluated the commercial value of their silent libraries and made a business decision. Producer Sol Lesser junked all of his silent productions in the 1930s when his production company needed storage space for newer films. Less verifiable, but just as credible, is the story that in the late 1940s, Columbia Pictures was presented with a significant increase in their fire insurance premiums. The decision made by Columbia executives was to reduce the material in storage by junking

unnecessary footage, including all of their silent films.<sup>14</sup>

After becoming an independent producer in 1923, Samuel Goldwyn produced seventeen silent features, including ten starring Ronald Colman. Goldwyn's wife and business partner, Frances Howard Goldwyn, ordered the destruction of almost all of his silent films. She told historian Robert S. Birchard that it was a business decision because the company needed the vault space. The only title she intentionally kept was Henry King's *The Winning of Barbara Worth* (1926) because it featured Gary Cooper and she felt it might have some commercial value.<sup>15</sup>

### Nitrate film stock

The decision by these owners to destroy their silent films merely anticipated the inevitable disintegration of the films, because the film used a base of nitrocellulose that was not chemically

stable. The 'nitrate' film base provided a luminous image, and was sufficiently flexible and resilient to withstand hundreds of projections. Eastman Kodak notes that this nitrate film stock 'had excellent physical properties', but suffered from 'poor chemical stability and high flammability', which meant that the film would rot if it didn't catch fire first. Nitrate film chemically deteriorates over time, and this process is accelerated by the symptoms of poor storage conditions: moisture and heat.<sup>16</sup>

Most silent negatives and prints were premature victims of decomposition due to poor storage conditions. Properly kept in a cool and dry environment, nitrate might outlast improperly stored safety film. While there were recommendations for ideal

temperature and humidity available, there were no regulations to enforce them. Since nitrate materials were often stored in far less than optimal conditions, they became more susceptible to accelerated deterioration and fire.<sup>17</sup>

Outdoor vaults without air-conditioning can reach extreme temperatures in the winter and summer. A visitor to a nitrate vault in Fort Lee, New Jersey, in late October 1972 noted that although the outside temperature was 50 degrees, inside the vaults it was 20 degrees warmer, musty and damp. Most of the film stored in the vault was deteriorating. This type of storage would be damaging for safety film; for nitrate film it would rapidly accelerate decomposition that might otherwise take decades to occur.<sup>18</sup>

In the first stage of decomposition, the image starts to fade as the base emits gases that affect the film emulsion. The surface then becomes sticky, attaching itself to the adjacent film. Next, gas bubbles appear near the tightly wound sections of film, where the gases are unable to escape. The film softens and welds into a single mass with an overwhelming noxious odor before degenerating to a rust-coloured acrid powder.<sup>19</sup>

The life expectancy of a reel of nitrate film depends on any number of factors including the chemical composition of that batch of film stock, how the film was developed and washed, and the type of storage. Trace amounts of chemicals remaining from when the film was originally developed play a part as the decomposition often starts in a particular portion of the negative (often the inter-titles) that was insufficiently washed. Once started, the decomposition transfers throughout the roll, and storage cans often trap the gases inside, accelerating the process.

Some nitrate from the turn of the century remains in excellent condition, while other films decomposed or fell apart after only a few decades. The original negative to D.W. Griffith's *The Avenging Conscience* (1914) was unusable ten years after its production due to improper handling and wear. Griffith sent the negative to Europe in 1923 to make prints for release in Germany. The German lab reported that the negative was heavily deteriorated and 'the destruction and decomposition through hypo had already advanced so far that the

emulsion was destroyed and came off the celluloid'.<sup>20</sup>

Even before decomposition set in, a negative could experience shrinkage beyond the capabilities of standard laboratory equipment. MGM reported in 1954:

The Consolidated Laboratories have just reported to us that they cannot satisfactorily print *Sally, Irene and Mary* (1925) as the negative titles have shrunk 1.75% and the picture has shrunk 1.40 per cent. The shrinkage that they can stand is 1.20%.<sup>21</sup>

When negatives were no longer able to produce prints, they became candidates for disposal. In April 1948, Universal ordered the destruction of all but a handful of their silent negatives. The comprehensive order required eighteen single-spaced pages to list the titles, stored in Woodridge, New Jersey and at Pathe Labs on East 106th Street in Manhattan. The memo excluded a number of titles from immediate destruction including *The Virgin of Stamboul* (1920) and *The Goose Woman* (1925), noting that 'it will be necessary for you to have the above seventeen negatives inspected. It will then be in order for you to junk what ever negatives that are not printable'. As one Universal executive wrote to his counterpart at Kodak in 1950, the Universal library of silent films was destroyed 'due to the fact that they had all deteriorated to the point where the retention of the "remains" was considered dangerous by the Pathe Laboratory in whose vaults they were stored'. An additional incentive to destroy the films might have been Universal's ownership of the Cellofilm Corporation, a silver reclamation company.<sup>22</sup>

### Indifference and benign neglect

The principal reason for the loss of such a high percentage of silent films was general indifference. As there was seldom a demand for older material, inspection of the materials was erratic, and they were subject to increased danger as the nitrate aged. Many films were not destroyed before their time; they simply did not last long enough for anyone to be interested in preserving them.

Owners who could afford it would continue to store their films and periodically check their condi-

tion. As soon as a print or negative displayed the symptoms of nitrate decomposition, it would be destroyed. Evidence of decomposition in any reel would be justification to junk the entire film, since a rotting film was a much greater fire hazard, and an incomplete print or negative would be of no use.

A review of various studio records shows many silent films did not survive twenty years after their production. A 1935 vault inventory of Pathe Exchange, Inc. documented that the negatives for *Mary's Lamb*, George Fitzmaurice's *At Bay* (both 1915) and *Ruler of the Road* (1918) had been 'scrapped'. Holdings on *Carolyn of the Corners* with Bessie Love and *Prince and Betty* (both 1919) were non-existent beyond the story files. A 1937 inventory of films from the 1910s produced by the Triangle Film Corporation showed that of 60 features with remake rights, a negative or print existed for only twenty.<sup>23</sup>

Films held by studios still in operation fared no better. The negatives to *Broadway After Dark* (WB, 1924) with Adolphe Menjou and Norma Shearer and *Bobbed Hair* (WB, 1925) with Marie Prevost were junked on 12 November 1936. *Wolf's Clothing* (WB, 1927) with Monte Blue and Patsy Ruth Miller was destroyed on 14 September 1938. Because of decomposition in reel 5, the entire negative to Erich von Stroheim's *The Devil's Passkey* (Universal, 1920) was destroyed on 8 May 1941. Four reels of the six-reel negative to Mary Pickford's *Johanna Enlists* (Artcraft, 1918) had rotted and were junked upon inspection in November 1946. Pickford's *Rosita* (UA, 1923) was already incomplete. Von Stroheim's last film for Universal, *Merry-Go-Round* (1923), was junked on 1 December 1949.<sup>24</sup>

The negative for von Stroheim's *The Merry Widow* (1925) was examined by MGM in November 1950, and showed so much decomposition that it was scrapped. A year later, when the negative for *He Who Gets Slapped* (1924) with Lon Chaney was pulled from dead storage, the first four reels had decomposed and were junked. Parts of the negative to Greta Garbo's first American film, *The Torrent* (1926), were 'very badly decomposed' upon inspection in July 1953. Reel three of the negative to Merian C. Cooper and Ernest B. Schoedsack's *Chang* (Paramount, 1927) was reported as 'slightly decomposed' in May 1956. The entire negative was destroyed after a visit by the Los

Angeles County fire inspector. *The Lucky Devil* (Paramount, 1925) with Richard Dix lasted long enough to decompose in 1960, and Ernst Lubitsch's *Lady Windermere's Fan* (WB, 1925) survived to be junked on 24 January 1961. The negative to Frank Capra's *Submarine* (Columbia, 1928) was destroyed in the mid-1960s due to decomposition.<sup>25</sup>

Prints frequently outlasted the negatives that generated them, but not always long enough. 'In the four years preceding Paramount's gift of about 90 feature films to [the American Film Institute], they had scrapped about 70 silent pictures', the AFI's Associate Archivist David Shepard said in a 1970 interview. 'In November 1968, Paramount gave the Library of Congress 90 [silent] features', he continued, but 'between November and April when the films were finally shipped, 13 of them had deteriorated'.<sup>26</sup>

In 1971 after the American Film Institute asked to borrow the last known print of James Cruze's *The City Gone Wild* (1927) from Paramount, the copy was pulled from storage and an inspection showed deterioration in one reel. The print was placed in a barrel of water and carted off by a salvage company while the AFI archivist was driving over to pick it up.<sup>27</sup>

Movies were not always junked, of course. Sometimes they succumbed to something closer to a natural death. In October 1969, Harold Lloyd buried 27 reels of deteriorating film in the yard adjacent to his estate's nitrate vault. The film laid to rest included odd reels of the original negatives to Lloyd's features *Why Worry* (1923), *Girl Shy* (1924) and *Hot Water* (1924) and negatives to a number of his one-reel short comedies. Had Lloyd not made safety negatives for most of his features and a single safety print for most of his shorts, the comedian would have barely outlived his life's work.<sup>28</sup>

### Nitrate film fires

Films were usually junked by placing them in a barrel of water due to the risk of fire. At its best, nitrate film has a relatively low ignition temperature; decomposition lowers the flash point so rotting nitrate film can spontaneously combust at temperatures as low as 106 degrees Fahrenheit, emitting toxic fumes while burning. Once ignition begins,



Fig. 2. James Durkin, who directed John Barrymore that year in *The Incorrigible Dukane* (Famous Players, 1915), stands in the ruins of the 26th Street Studio, 11 September 1915. [Richard Koszarski Collection.]

internal oxidising agents accelerate the combustion so that tightly wound film will continue burning underwater.

The flammable nature of nitrate and careless handling led to many well-publicised fires with loss of life. A fire in a Pittsburgh film exchange in January 1909 killed ten people. In 1914, a courier carried four reels of film wrapped in paper into the smoking car of a Chicago commuter train. The package caught fire, killing two and badly burning 38 people, and destroying the interior of the car. A 1919 film-exchange fire injured 30 people.<sup>29</sup>

In the early 1910s, the Lubin Film Manufacturing Company laboratory in Philadelphia supplied release prints for the Jesse L. Lasky Feature Play Company and other producers. An explosion and fire in a storage vault on 13 June 1914 destroyed numerous negatives including *The Sea Wolf* (1913), produced by Bosworth, Inc. The Thomas Edison plant in New Jersey burned on 9 December 1914 when a fire started in a vault in the film inspecting building and quickly spread. The fire that

burned the Manhattan studios of Famous Players on 11 September 1915 also destroyed the negative to *The Foundling*, an unreleased Mary Pickford film directed by Allan Dwan.<sup>30</sup>

These and other well-publicised disasters forced the industry to consider shifting to a safer film stock. Kodak had developed a nonflammable cellulose acetate film stock by 1909. Unfortunately, it was less durable and more expensive, with a grainier image, so a brief experiment with acetate release prints ended in 1911. Prints would warp and buckle under the high intensity open arc lights used in projectors, and distributors recognised that because of the rapid wear, the adoption of safety film would require a fourfold increase in the number of release prints. The National Fire Protection Association launched a major campaign for safety film in 1918–19 and again in 1923 with support from the International Association of Fire Engineers, but each effort was defeated by strong lobbying by film distributors and Eastman Kodak.<sup>31</sup>

Eastman Kodak began a rigorous fire safety

program in 1919, and in 1922 the Motion Picture Producers and Distributors of America assumed administration. Because of the risk to employees, tighter building codes and stricter handling procedures were introduced for laboratories and theatres. Fireproof projection booths, storage rooms and film vaults were equipped with sprinkler systems. Since all the prints being sent to theatres were new, the risk of fire was minimal if the reels were handled carefully. Existing or specially constructed buildings in each city were certified for storage and handling of nitrate film. MPPDA field agents reviewed the work of local film safety inspection committees. Each reel was inspected upon return from a theatre, since broken sprockets or bad splices might cause film to catch in the projector and ignite. Reels of film were stored in cans placed in fireproof containers, withdrawn only as needed for projection or inspection.<sup>32</sup>

Proponents of safety film continued their unsuccessful crusade. A 1923 bill to allow widespread use of 35 mm acetate film in schools and churches in New York state was vetoed by the governor following the vigorous opposition of the national projectionists' union. The professional standing of the projectionists was based on quality projection and safe handling of dangerous film. The wide availability of nonflammable film and portable projectors would endanger the dominant role of the projectionists within the industry.<sup>33</sup>

With air-conditioning and automatic sprinkler systems uncommon until the 1970s, film vaults were often little more than storage sheds. MGM had better storage than most and a higher proportion of MGM silent films survive than those produced by any other company. Roger Mayer, MGM's studio manager in the 1960s, recalled:

None of the vaults had sprinklers. They were concrete bunk houses on what we called Lot 3, and there was a little fan in the roof. No air conditioning, no sprinklers. And that was considered good storage because [the films] couldn't be stolen.<sup>34</sup>

Several big fires in the early twenties destroyed many of the early Universal releases. A huge fire burned fifteen acres of the forty-acre Warner Bros. Burbank studio backlot on 4 December 1934. The *Los Angeles Times* reported that 'six film vaults also

went up in flames, destroying hundreds of stock shots of foreign scenes and many valuable and irreplaceable films of the Vitagraph era'.<sup>35</sup>

Most of the Fox Film Corp. library was destroyed in a disastrous fire in Little Ferry, New Jersey on 9 July 1937, during a period of 100-degree temperatures. The storage facility was only two years old, and although built in a residential neighbourhood, the vaults were not equipped with automatic sprinklers. The building's 42 vaults held 40,000 reels of Fox and Educational prints and negatives produced from 1914 to 1932. Gases from decomposition built up due to faulty ventilation, and spontaneously ignited. The fire in the first vault led to the successive explosion of the others. One explosion emitted a sheet of flame from a vent that killed a 13-year-old boy running from a nearby house. Every reel of film in the building was destroyed, and the 57 truckloads of scrap removed from the site returned \$2,000 in silver salvage. Besides destroying the best and often only material on every pre-1932 Fox picture, the toll included the original negative to D.W. Griffith's *Way Down East* (1920), which Fox had purchased for a remake.<sup>36</sup>

In the late summer of 1938, a fire destroyed the foreign negative to Charlie Chaplin's *The Kid* (1920). In 1939, Harold Lloyd bought the negatives of the short films he made at the beginning of his career. On 5 August 1943, one of the film storage vaults on his estate exploded, and Lloyd lost a third of his original negatives and prints. Rushing to investigate, Lloyd collapsed in the doorway of the vault, and seven firemen and a Lloyd employee were taken to a local hospital after breathing noxious fumes.<sup>37</sup>

In 1965 television producer Rudy Behlmer was walking with his editor from Lot 2 to Lot 1 at MGM's Culver City studio when he 'heard this loud noise – we later discovered it was one of the vaults blowing up'. Roger Mayer recollected:

Someone was killed in that explosion. Somebody was working on the film at the time and as far as anybody could tell, it was an electrical short of some sort igniting the film.

The explosion in vault 7 destroyed the entire contents, including the original negatives to *A Blind Bargain* (1922) with Lon Chaney and *The Divine Woman* (1928) with Greta Garbo. Mayer noted



that the MGM vaults were spread out so that a fire would not reach nearby vaults, and 'a sprinkler system would not have made that much difference because the amount we lost by fire was minimal'.<sup>38</sup>

### Fate unknown

The known factors – intentional destruction, decomposition, fire – do not account for the loss of such a large proportion of the films produced during the silent era. Many mysteries remain. For example, there is uncertainty about when the Warner Bros. and First National silent features were destroyed, but there is no doubt about their fate.<sup>39</sup>

In 1952, Warner–Pathe short-subject producer Robert Youngson began producing a series of one-reel condensations of Warner Bros. silent films. Youngson 'was given the run of the vaults', recalled his friend William K. Everson, 'except there wasn't that much inside'. Youngson was limited in the films he could abridge because Warners had 'very very little left', according to Everson. 'I remember I saw a list of it and there were only about 30 silent titles.'<sup>40</sup>

Youngson condensed Warner's surviving big-budget silent features *Don Juan* (1926), *Old San Francisco* (1927) and *Noah's Ark* (1929) into ten-minute short subjects. With so many films no longer in existence, Youngson turned to the Rin-Tin-Tin vehicle *Tracked by the Police* (1927), and even moved on to sound films, replacing the dialogue in *Isle of Lost Ships* (1929) with his trademark peppy narration.<sup>41</sup>

Table 1 shows that in 1958, after a thorough search, Warners could only locate 35 mm material on 57 of 477 pre-1929 features that the company owned. It is not clear if the destruction was intentional, but it was certainly comprehensive, as most of Warners' 1928–30 early sound pictures were completely missing also.<sup>42</sup>

### No sense of history

In retrospect, it seems remarkable that the executives of the companies that produced and still owned silent films did not invest in their survival. Many of the industry leaders during the silent era remained in charge of their companies well into

**Table 1:** Feature films produced by Warner Bros. and predecessor companies known to be surviving in 1958

Year	Surviving	Lost
1918	1	0
1919	1	2
1920	2	17
1921	6	46
1922	2	29
1923	2	30
1924	4	41
1925	11	65
1926	7	58
1927	10	7
1928	11	56

the 1950s, with Harry Warner and Jack L. Warner at Warner Bros., Jack Cohn and Harry Cohn at Columbia, Adolph Zukor and Barney Balaban at Paramount and Nicholas Schenck at Loew's.

Owners showed minimal concern for the survival of older films. This active disinterest was reflected in 1928 in the authorised biography of Paramount Pictures Chairman Adolph Zukor:

'My single chance for immortality', said Sarah Bernhardt when she consented to act for the film. Alas, all that remains to America of *Queen Elizabeth* [1912] is one disintegrating print in the storehouse of the Paramount laboratories. Frank Meyer, now laboratory superintendent, ran it off for [biographer Will Irwin] in 1927 – not for years before that had anyone unwound it from its metal reel. Many of the other early Zukor–Lasky successes have rotted or disappeared.<sup>43</sup>

By-and-large, these men focused on the future. The loss of so much of the silent cinema was not all that significant to their producers, as the film industry has almost always held an unsentimental view of its history. The industry's focus is short term, with new pictures always better than the old ones. Since films had a limited commercial life, and were rapidly written down as corporate assets, any expense toward better storage or preservation would

reduce current profits with no future return. One industry insider noted that the studios 'were in the razor business, and the films were the blades'.<sup>44</sup>

The Museum of Modern Art's Iris Barry recognised on her initial film-gathering trip to Hollywood that 'no one cared a button about "old" films, not even his own last-but-one, but was solely concerned with his new film'. These very successful businessmen did not look to the past or base their business decisions on sentiment if they gave the silent films any thought at all. While the silent films might have been 'their films', it was also 'their money'. They did not want to watch the films, let alone preserve them. In an industry built on youth, these executives may have resented the films that reminded them and others how long they had been around.<sup>45</sup>

In 1947 and 1948, the Academy of Motion Picture Arts and Sciences held twentieth anniversary screenings of films from the initial Academy Awards ceremonies, given to the best films produced by the industry. With the co-operation of every company, the Academy could locate prints for only ten of fifteen titles from the first year's awards. This series offered probably the last public screenings of Lewis Milestone's comedy *Two Arabian Nights* (UA, 1927) and two dramas starring Emil Jannings, Victor Fleming's *The Way of All Flesh* (Paramount, 1927) and Ernst Lubitsch's *The Patriot* (Paramount, 1928). When the Museum of Modern Art inquired about *The Patriot* in 1955, that print had decomposed.<sup>46</sup>

### Why was this allowed to occur?

Industry organisations might have accomplished what individual companies would not. The Academy of Motion Picture Arts and Sciences, for example, might have ensured that each company safeguarded a few films each year. However, motion picture industry charity has always supported health care, not the arts, and nostalgia for old films would have been contrary to the focus on new pictures. During the slump in business that began in the late 1940s, and accelerated with the widespread advent of television, the industry advertised that 'Movies Are Better Than Ever'. If an old film was any good, it would be remade. When James Card requested *Down to the Sea in Ships* (Hodkinson, 1922) for the film collection at George Eastman

House, Twentieth Century-Fox sent the 1949 remake with Richard Widmark. When Card called to explain the mix-up, the studio suggested that if he wanted a silent film, he should have the projectionist turn down the sound.<sup>47</sup>

Studio politics probably played a role. There had been many fires, so no one expected all old films to be available. There were few requests for studio screenings of ancient titles, so their loss was not noticeable. Film storage was a cost centre, not a profit centre, and the dramatic benefit of cool and dry storage to the long-term stability of nitrate film was not widely recognised. After all, who in the company would want to admit that it was their fault that the old films were rotting? In 1959, during a research visit to the Paramount lot in Hollywood, William K. Everson found that many Paramount silent films he hoped to see were 'not available'. Yet in 1967, Hazel Marshall, Paramount's film librarian since 1924, seemed sincere when she told historian Robert S. Birchard: 'We have everything we ever made.'<sup>48</sup>

Any preservation effort in the thirties or forties would have copied films to nitrate stock, merely prolonging their existence, not ensuring their survival. More stable triacetate film was introduced in 1952, when the industry was in a slump and profits were down. Companies that are focused on adapting to a rapidly changing market seldom look to the past. Three-dimensional effects and CinemaScope promised to make all previous sound films obsolete. Silent films had become obsolete 25 years earlier.<sup>49</sup>

If there was no significant market for silent films, that was a self-fulfilling prophecy. Properly handled, a small market might have developed. None of the companies tried, and admittedly, even if they had, such a sideline could never have been very profitable. It would have been inexpensive and straightforward to make either a 16 mm negative or a single 35 mm safety print for each film, especially as most companies had some in-house film laboratory facilities. The cost could even have been buried in the budgets of pictures in production. After all, since the old films were gradually disappearing, *not* copying the pictures was an irreversible decision. But without an emotional, historical or business justification, the owners let decomposition take its course.

Producer-stars did take some active measures. Mary Pickford, Gloria Swanson, William S. Hart,



Fig. 3. *The Legion of the Condemned* (Paramount, 1927). William Wellman's air epic, starring Fay Wray and Gary Cooper, was scrapped by Paramount. [Courtesy of Frank T. Thompson.]

Harold Lloyd and Douglas Fairbanks donated prints and negatives to the Museum of Modern Art and George Eastman House and Pickford was one of the few to provide any financial support. Archives offered to save the important films for posterity, at no cost to the industry. As the Museum of Modern Art's Richard Griffith noted in 1955, 'Hollywood feels – and with some logic, it seems to me – that

the preservation work should be carried on by some publicly supported institution'. The activities of the archives may have, hypocritically, relieved the companies of any sense of obligation. Eastman House's James Card noted, 'in nearly all quarters everyone felt that every film of any conceivable importance was preserved at the Museum of Modern Art'.<sup>50</sup>

Stock footage companies and documentary

H. D. MAHER, PRESIDENT. W. F. ALLEN, SECRETARY AND TREASURER

**BUREAU OF EXPLOSIVES**

OFFICE OF THE CHIEF INSPECTOR  
UNDERWOOD BUILDING  
20 VESKY STREET

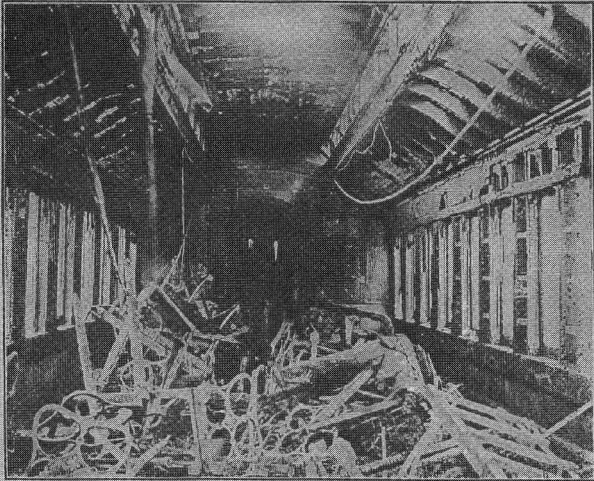
FILE NUMBER  
19-3071  
52

COLONEL B. W. DUNN, CHIEF INSPECTOR.  
TELEPHONE—1860, CORTLANDT.

New York City, December 21, 1914.

B. E. SPECIAL BULLETIN NO. 1.

**MOVING PICTURE FILMS IN SMOKING CAR.**



On the evening of November 24th, 1914, a passenger on a suburban train running out of Chicago, carried into the combination smoking and baggage car a paper wrapped package containing four reels of moving picture films which he had secured from a film company in Chicago for use in an exhibition at a suburban club. This film company did not prevent this highly inflammable product, in criminally careless packing, leaving its premises, although its representative must have had intimate knowledge of the danger and must have been familiar with the safe packing prescribed by the Federal regulations. The film company saved a few cents; the public paid with valuable lives.

The package was placed on the floor of the car between two seats near the center of the car, and about four minutes after the train had left its Chicago terminal a puff of smoke arose from the package, which was instantly followed by a burst of flames. Passengers in front of the flames rushed for the door of the baggage compartment, and in opening it let in a draught that caused a rapid spread of the fire. The train was stopped, but before the passengers could get out of the car **38 persons were badly burned. Two have died as a result of the injuries and one is not expected to live.** The damage to railway equipment amounted to \$2,465.00.

Fig. 4. Bureau of Explosives, *Special Bulletin* No. 1, 21 December 1914. [Richard Koszarski Collection.]

producers saved films, but like their studio counterparts, they were running a business. In many cases original prints or negatives were chopped up for clips and condensations. Preservation was often only a byproduct of delivering a product to a client for a compilation film, documentary or commercial. Nitrate films were a depletable resource, much like an oil well, to be used until they ran out.<sup>51</sup>

Only when silent films were viewed independently of their immediate commercial value would they be saved. The publicly funded archives preserved films because their mission ignored commerce and focused on art and sociological importance. MGM saved many of their silent films due to a value-neutral policy of preserving corporate assets.<sup>52</sup>

In the final analysis, silent films were produced to make a profit, and many of them satisfied that short-term expectation. The economic considerations that caused these films to be made in the first place also led to their demise. Unless they provided ongoing revenue, silent films did not justify their continued existence. Without the timely appearance of the archives to save many films until public interest reemerged and the comprehensive preservation policy in place at MGM, the disappearance of our silent film heritage would likely have been close to complete.

### Acknowledgments

This article is dedicated to my wife Shari, who as always has been wonderful and supportive. I extend my appreciation to Bob Birchard, James Bouras, Kevin Brownlow, Philip Carli, Scott Eyman, Scott MacQueen and David Shepard for reviewing drafts of this article, providing insights and making valuable comments. All errors of fact or interpretation remain mine.

For research assistance, I extend my thanks to the research facilities at my home-away-from-home – the Library of Congress. Especially helpful were the staff of the Copyright Office, the Manuscript Division (where Anthony Slide's inventory of the Thomas H. Ince papers was invaluable) and David Parker, Madeline Matz and Rosemary Hanes of the Division of Motion Pictures, Broadcasting and Recorded Sound. Richard Koszarski was very forthcoming with his encyclopedic knowledge of Universal films. Ed Stratman, Philip Carli and Kay MacRae of the George Eastman House were of great assistance. At the University of Southern California Cinema–Television Library Ned Comstock went beyond the call of duty, and Leith Adams at Warner Bros. was extremely helpful with press material on the 1934 Warner Bros. fire.

Finally, I have to thank those who came before me and saved silent films: James Card, Paul Killiam and David Shepard. ♦

### Notes

1. The American Film Institute estimated in the early 1970s that only 50 per cent of nitrate-era (pre-1951) films, survive, and less than 25 per cent of

silent-era films. The earliest appearance of a version of the AFI numbers is *The American Film Institute Report 1967/1971*, 8, 11. Their veracity is discussed in Anthony Slide, *Nitrate Won't Wait*, (Jefferson, NC: McFarland, 1992): 5. A closer examination of American silent feature films in US and foreign archives appears in *Film Preservation 1993: A Study of the Current State of American Film Preservation*, vol. 1: Report, June 1993; Report of the Librarian of Congress, 3–4. This report claims that the survival rate ranges from 7 to 12 per cent of each year's releases for features of the 1910s, and from 15 to 25 per cent during the 1920s. These numbers would be somewhat higher if studio collections (primarily the silent features preserved by MGM) and private collections were included.

2. 150 prints: Richard W. Saunders, comptroller of Famous Players-Lasky, quoted in Frederick James Smith, 'What Happens to Your Movie Money', *Photoplay* (March 1927): 45. See also: Paul V. Shields, 'The Movie Industry Applies Chain Store Methods', *Forbes* (15 July 1925): 527, which states 'as a general rule, about sixty prints of [each] film are made for foreign use and 100 for domestic use'. According to a 1921 newspaper article, 'the producer makes a limited number of prints for distribution. As a rule, this number is 65; it may be less, it is rarely more'. See: 'When a Film Grows Old', *The New York Times* (28 August 1921).

In the 1920s, distributors charged the cost of prints to independent producers. In those cases where the distributor was making prints at his own laboratory, a producer could find a significant portion of his potential profits spent on unneeded prints. To protect against this, distribution agreements often had a limit on the number of copies that could be manufactured. Inspiration Pictures' 19 December 1921 distribution agreement with First National allowed up to 100 prints. Three years later, Inspiration agreed to pay for up to 125 prints for domestic distribution. First National was required to have insurance on the negative until 60 prints were manufactured. Inspiration Pictures file, Warner Bros. Collection, University of Southern California Cinema–Television Library.

3. 'Film Exchange Fire Prevention Results', *National Fire Protection Association Quarterly*, (January 1926): 224–229. Henry Anderson, 'Fire Safety in the Motion Picture Industry', *National Fire Protection Association Quarterly* (July 1936): 21. *Show People and Our Dancing Daughters: The Motion Picture Almanac 1929* (Chicago: Quigley Publishing Company, 1929), 204, 206. Both reports were from the Screenland Theatre, Nevada, Ohio, 'small town patronage'.
4. William R. Donaldson, 'Valuing the Inventories of

- Motion-Picture Producers, *The Journal of Accountancy* (March 1927): 171–179. All amounts throughout the article are in US dollars.
5. Albert F. Sulzer, 'The Epoch of Progress in Film Fire Prevention', *Journal of the Society of Motion Picture Engineers* (April 1940): 403. *Suds*: Letter, United Artists Corporation to Mary Pickford Company (11 September 1925), United Artists Collection, State Historical Society of Wisconsin. See also: M. Deschiens, 'Recovery of Constituents of Old Motion Picture Films', *Chemical Age* (May 1921): 93–194.
  6. *The Unknown*: Assignment of Copyright, Paramount Famous Lasky Corp. to Universal Pictures Corp. (30 September 1927). Copyright Office Assignment Records, vol. 189, 80–86. Fortunately, that library print of *The Unknown* stayed with Paramount and was among the relatively few Paramount films that survived to be acquired by the American Film Institute. *Little Annie Rooney*: Assignment of Copyright, Mary Pickford Company to Edward Small Productions, Inc. (19 June 1941). Copyright Office Assignment Records, vol. 464, 180–181.
  7. The story rights to *Bardelys the Magnificent* were to expire in 1939. MGM memorandum, D.O. Decker to Paul Cohen (9 December 1931), reproduced in Philip J. Riley, *A Blind Bargain* (Atlantic City: Magic Image Filmbooks, 1988), 19.
  8. Letter, George D. Swartz of George D. Swartz Pictures, Inc. to Mr. Ingle Carpenter (20 August 1928). Ince Collection, Manuscript Division, Library of Congress.
  9. Bill of Sale, Thos. H. Ince Corporation to Warner Bros. Pictures, Inc. (30 January 1930). Ince Collection, Manuscript Division, Library of Congress. The films were *String Beans*, *The Hired Man* (both 1918), *Greased Lightning*, *Egg Crate Wallop*, *Red Hot Dollars*, *Hay Foot*, *Straw Foot*, *Crooked Straight* (all 1919), and *Paris Green* (1920). All of the films starred Charles Ray and were written by Julien Josephson. *Tol'able David*: Agreement, Joseph Hergesheimer and Inspiration Pictures, Inc., in Liquidation to Columbia Pictures Corporation, 16 June 1930. Copyright Office Assignment Records, vol. 250, 42–49. *23½ Hours Leave and Civilization*: David Shepard, 'Thomas Ince', in *The American Film Heritage*, (Washington, DC: Acropolis Books Ltd., 1972), 44.
  10. Agreement, Albert D. Levin and Triangle Liquidation Corporation to Warner Bros. Pictures, Inc. (5 October 1937). Copyright Office Assignment Records, vol. 392, 92–129.
  11. Films sold for \$875, purchased for \$10,000: Letter from Ralph Lewis, Preston & Files, to R.J. Obringer, Warner Bros., (26 July 1940), Sennett file, Warner Bros. Collection, University of Southern California Cinema–Television Library. Sennett purchased for \$75: Order Confirming Sale of Personal Property in the Matter of Mack Sennett, Inc., Bankrupt, No. 21878 C, District Court of the United States, Southern District of California, Central Division (31 March 1936). Copyright Office Assignment Records, vol. 1226, 61–67. Sale to Warner Bros: Ray films: Bill of Sale, Paul J. Guerin to Warner Bros. Pictures, Inc. (30 September 1940). Copyright Office Assignment Records, vol. 1226, 76–84. Attorney: Warner Bros. memo from R.J. Obringer to Morris Ebenstein, (10 July 1940), Sennett file, Warner Bros. Collection, University of Southern California Cinema–Television Library.
  12. Inventory of prints and negatives: Bill of Sale, Paul J. Guerin to Warner Bros. Pictures, Inc. (30 September 1940). Copyright Office Assignment Records, vol. 1226, 76–84. The vault inventory, probably dating from the 1936 sale by the bankruptcy court, notes that for Sennett features, there were A and F (American and Foreign) negatives for *The Shreik of Araby* (1923), *Molly O'* (1921), *Suzanna* (1922), *The Crossroads of New York* (1922), and *Down on the Farm* (1920). There were only the F-negatives for *Yankee Doodle in Berlin* (1919) and *The Extra Girl* (1923). The first short released by Warners was *A Small Town Idol* (1939). The subsequent shorts using Sennett footage were two-reelers *Love's Intrigue* (1940), *Happy Faces* (1941), *Wedding Yells* (1942), *Happy Times and Jolly Moments* (1943), *Once Over Lightly* (1944) and *Good Old Corn* (1945). Two one-reelers, *Here We Go Again* and *Hit 'Im Again*, followed in 1953.
  13. Storage fees at one facility were 'at the rate of Two Dollars per month or fraction thereof per five reel unit for each of the first five such units, and at the rate of One Dollar per month or any fraction thereof for each five reel unit in addition to the first five'. A seven-reel picture might include a negative and a print. Since owners were likely to have hundreds of reels, my calculation of \$35 is based on the one dollar per month storage charge. Memorandum of Agreement, between Lloyds Film Storage and Mr. Ingle Carpenter, Attorney for Thos. H. Ince Corp., (5 April 1930). Thomas H. Ince Collection, Manuscript Division, Library of Congress.
  14. Sol Lesser: Sol Lesser conversation with David Shepard during the restoration of Lesser's *Oliver Twist* (1922). David Shepard to author (26 August 1995). Columbia: private source.
  15. A 1956 tribute at the Museum of Modern Art showed Goldwyn's *Potash and Perlmutter* (1923) and a fragment, 'all that remains', of Goldwyn's *The Eternal City* (1923). Both are now considered lost. The only other silents included in the series were

- Goldwyn's *Stella Dallas* (1925) and *The Winning of Barbara Worth* (1926). Destruction of Goldwyn silents: Robert S. Birchard talked to Mrs. Goldwyn in 1970–71 at a screening of *The Winning of Barbara Worth* (1926) at a tribute to Henry King. Robert S. Birchard to author (29 August 1996).
16. Excellent physical properties: 'Safe Handling, Storage, and Destruction of Nitrate-Based Motion Picture Films', (Rochester: Eastman Kodak Company), *Kodak Publication No. H-182* (September 1995): 1.
  17. Storage recommendations: see Storage Standards in the section on Safe and Economical Storage in 'Report of the Committee on the Preservation of Film', *Journal of the Society of Motion Picture Engineers*, vol. 35 (December 1940): 584–606.
  18. Private source. The reels were stored in cartons which held ten cans. Storage charges were \$6.00 per year per carton.
  19. A.H. Nuckolls, 'Cellulose Nitrate and Acetate Film', *National Fire Protection Association Quarterly* (January 1930): 236–242. *Kodak Publication No. H-182*, 2.
  20. Translation of letter from Karl Geyer Filmfabrik to Transocean Film Co., Berlin, (28 October 1926). Microfilm edition, *D.W. Griffith Papers 1897–1954* (Frederick, M.D.: University Publications of America, 1982), reel 14, image number 1189. Griffith had the negative returned to New York and inspected by Combined Film Laboratories in New York. They reported that 'the condition of this negative is very poor as it contains water marks, stains, cement marks, fog and blank film throughout the various rolls. It appears as though the negative might have gotten wet, as the emulsion in a good many places is completely peeled off.' Letter, Combined Film Laboratories to D.W. Griffith, Inc. (10 January 1927), reel 14, image number 1972. Thanks to David Shepard for directing my attention to this.
  21. Letter, W.D. Kelly, Metro-Goldwyn-Mayer Pictures to James Card, George Eastman House (5 March 1954). MGM file, George Eastman House International Museum of Photography and Film.
  22. Destruction: Universal Film Exchanges Inc. memo from F.T. Murray, Mgr. Branch Operations, to Mr. I. Stolzer, Bound Brook, N.J. (27 April 1948). Photocopy of memo courtesy Richard Koszarski. Pathe Laboratory: Letter, John J. O'Connor, Universal Pictures Company, Inc. to Edward P. Curtis, Eastman Kodak Company, (20 February 1950). Universal file, George Eastman House International Museum of Photography and Film. The letter concluded: 'Our oldest films now start with the sound era, which means that the oldest negatives we now have in the vaults do not go back beyond 1929.' It seems likely that Universal simply destroyed everything that did not have a sound track. Several silents with synchronised music scores survived to be donated to the American Film Institute in the late 1960s, suggesting that Pathe's concern over safety was an excuse, as much as a reason, for destroying the films. Cellofilm Corporation: 1927 Annual Report of Universal Pictures Company, Inc. Thanks to Richard Koszarski for directing my attention to Universal's ownership of Cellofilm.
  23. Pathe Films: Schedule 'A', 'Negatives at Bound Brook', and 'Positive Prints at Bound Brook', to Indenture between Pathe Exchange, Inc. and Columbia Pictures Corporation (3 July 1935). Copyright Office Assignment Records, vol. 334, 246–282. Triangle Films: Triangle Liquidation Corp., 14–116. The survivors were mostly the higher profile films, including those starring Douglas Fairbanks.
  24. Warner Bros. destruction records: private source. *Johanna Enlists and Rosita*: Carl Louis Gregory, 'Inventory of Mary Pickford's Film Collection (14 December 1946)'. Mary Pickford folder, Acquisitions, Selection and Distribution, 1940–48, Records Relating to Motion Pictures 1934–54, The Archives of the Library of Congress, Manuscript Division, Library of Congress. Von Stroheim films for Universal: Richard Koszarski, *The Man You Love to Hate: Erich von Stroheim and Hollywood* (New York: Oxford University Press, 1983): 70, 111.
  25. He Who Gets Slapped: Letter, W.D. Kelly, Metro-Goldwyn-Mayer Pictures, to James Card, George Eastman House, (30 November 1951). *The Merry Widow*: Letter, William LeVanway, Chief Film Editor, Metro-Goldwyn-Mayer Pictures, to James Card, George Eastman House, (14 November 1950). *The Torrent*: Letter, James Card, George Eastman House, to W.D. Kelly, Metro-Goldwyn-Mayer Pictures (27 July 1953). MGM file, George Eastman House International Museum of Photography and Film. Other titles: private source.
  26. David Shepard: Austin Lamont, 'In Search of Lost Films', *Film Comment* (Winter 1971–72): 60. Some of the Paramount films that were 'found at the time of assembly and packing to have disintegrated' included Clarence Badger's *Man Power* (1927) with Richard Dix, Luther Reed's *New York* (1927) with Ricardo Cortez and *The Sawdust Paradise* (1928) with Esther Ralston, Frank Tuttle's *Time to Love* (1927) with Raymond Griffith and William Powell, James Cruze's *We're All Gamblers* (1927) with Thomas Meighan, and several George Melford features: *Crystal Gazer* (1917) with Fannie Ward, *Faith Healer* (1921) with Milton Sills and *Sunset Trail* (1917) with Vivian Martin. Private source.

27. Kevin Brownlow, *Behind the Mask of Innocence* (New York: Alfred A. Knopf, 1990), footnote 235 on 529. Also Kevin Brownlow to author (15 December 1995).
28. Undated Harold Lloyd film inventory, private source.
29. 'Fire Exchange Regulations', *The American Architect* (17 July 1918): 88–94. A similar fire occurred on a Boston subway car in January 1925, when a burlap bag containing scrap nitrate film was placed against an electric heater. No one was killed, but 27 passengers were taken to the hospital with burns. 'Film Fire in Boston Subway', *National Fire Protection Association Quarterly* (January 1925), 183–184. Pittsburgh: 'Film Exchange Fire Prevention Results', *National Fire Protection Association Quarterly* (January 1926): 224–229. Poor vault design was occasionally a contributing factor in these conflagrations, as the exhaust from burning film entered through an adjoining vent to another vault. See: 'Fire Prevention in Film Exchanges', *Safety Engineering* (November 1925): 263–264.
30. Edison: 'Edison Sees His Vast Plant Burn', *The New York Times* (10 December 1914): 1. A more detailed account of the origin of the blaze followed the next day: 'Mrs. Edison Saved Husband's Records', *The New York Times* (11 December 1914): 9. Also see: 'Great Edison Plant Burned: Fire Wrecks Ten Big Factory Buildings at East Orange, NJ – Origin Not in Film Factory', *The Moving Picture World* (19 December 1914): 1662. This article claims that contrary to the New York newspapers, this was not a film fire, but started in the varnishing department of the phonograph building, and that all motion picture negatives were removed before the fire reached the film building.
- Lubin: 'Big Fire at Lubin Plant: Explosion Wrecks Film Storage Vault Causing Damage of Between \$500,000 and \$1,000,000 – No Interruption in Business', *The Moving Picture World* (27 June 1914): 1803. Lubin's general manager, Ira Lowry, said, 'some of the films which were destroyed had never been put on the market; others cannot be reproduced or duplicated. Our loss on films will be at least \$500,000, and on the vault building about \$5,000 more'. *The Sea Wolf*: Robert S. Birchard, 'Jack London and the Movies', *Film History*, vol. 1, 32. Famous Players: *The Foundling* was quickly remade with a different director and supporting cast. Peter Bogdanovich, *Allan Dwan: The Last Pioneer*, (New York: Praeger Publishers, 1971): 178.
31. More expensive: In 1921, acetate-positive stock cost 3 cents per foot, while the equivalent nitrate-positive stock was 2.25 cents per foot, so users of acetate stock paid a cost premium of 33 per cent.
- 'Report of the Committee on Films and Emulsions', *Transactions of Society of Motion Picture Engineers* (May 1922): 166. 'Film Exchange Fire Prevention Results', 224–229. Fire Engineers: 'The Inflammable Picture Film', *National Fire Protection Association Quarterly* (October 1922): 109–110.
32. Nuckolls, 236–242. Sulzer, 405–408.
33. Discussion of W.W. Kincaid, 'Requirements of the Educational and Non-Theatrical Entertainment Field', in *Transactions of Society of Motion Picture Engineers* (May 1924): 111–118.
34. Roger Mayer to author (29 May 1996).
35. Universal: 9 February 1989 letter from Richard Koszarski to author. Warner fire: 'Films Go On Despite Fire', *Los Angeles Times* (6 December 1934): 1. The fire apparently started in a machine shop. An article in the Glendale paper states that the Vitagraph films destroyed were prints. 'Films Valued as Historical Lost: Early Pictures Destroyed When Flames Rage in Library at Studio', *Glendale News-Press* (5 December 1934): 6. The press accounts are uniform in stating that the destruction of sets and support buildings would not disrupt production and the loss was fully covered by insurance. In contrast, photographs of the scene show total devastation. The December 1934 edition of the *Warner Club News* observed 'the boys from the publicity department staying on the job till 2:30 a.m. handling the newspapermen and the cameramen'. It is possible that the studio misrepresented which films were destroyed to indicate that nothing important was lost. Nonetheless, the fire would not have destroyed the Warner Bros. and First National negatives as they were stored on the east coast. Also see: Jack L. Warner, *My First Hundred Years in Hollywood* (New York: Random House, 1965): 240. Thanks to Leith Adams, Warner Bros. Archivist, for providing information on this fire.
36. 'Fox Film Storage Fire,' *National Fire Protection Association Quarterly* (October 1937): 136–142.
37. *The Kid*: David Robinson, *Chaplin: His Life and Art*, (New York: McGraw Hill, 1985), 225. Harold Lloyd: 'Harold Lloyd Saved From Fire by Wife', *The New York Times* (6 August 1943): 17. See also Adam Reilly, *Harold Lloyd: The King of Daredevil Comedy*, (New York: Macmillan, 1977), 7.
38. MGM eyewitness: Rudy Behlmer to author (30 August 1996). Specific films lost: Philip J. Riley, *London After Midnight* (1985). (New York: Cornwall Books), 18. Cause of explosion: Roger Mayer to author (29 May 1996).
39. There are persistent rumours that Warners junked their silent material during World War II, but I was



unable to verify that story. On 4 March 1996, I interviewed Rudi Fehr, who began at the studio in the mid-1930s as an editor, and became the head of Warners' film editorial department. He had no knowledge of the fate of the company's silent films. My own check of the index to the Warner Bros. Collection at the USC Cinema–Television Library and Princeton University, and a subsequent review by USC archivist Ned Comstock found no files of interest.

The Jack L. Warner Collection at the USC Cinema–Television Library holds the surviving telegrams sent between the Burbank and New York offices. I reviewed the telegrams from 1941 through 1946, and there was no indication of destruction of any old material other than trailers. During 1944 and 1946, Jack L. Warner told the east coast lab in Brooklyn to send prints of *My Four Years in Germany* (1918) and *The Divine Lady* (1929) to the west coast. A 1944 telegram requesting a print of *Top Speed* (a 1930 sound picture) read: 'If you have negative yet on *Top Speed* have lab make up black and white print whenever they not busy out of positive short ends if you have enough and send same to me via straight express. Advise.' In 1958, Warners could only locate material on 49 of 76 films from 1930, so the existence of *Top Speed* could not be assumed.

In 1950, James Card at the George Eastman House ordered a print of *The Sea Beast* (1926) with John Barrymore, and it was made from the shrunken, but complete, original negative. Warner Bros. file, George Eastman House International Museum of Photography and Film. In 1952 Jack L. Warner ordered a print of *Noah's Ark* (1929) to review for possible reissue, and the original negative, while deteriorating, was still in existence. Scott MacQueen, 'Noah's Ark: Making and Restoring an Early Vitaphone Spectacle', *The Perfect Vision*, vol. 3, no. 12 (Winter 1991–92): 35–45.

These actions indicate that Warner Bros. held onto its films, and could order copies on demand, while the fact that so few films survive (see footnote 42 below) suggests that at some point there was a complete housecleaning of Warners' early films. The fate of the Warner Bros. silent and early sound material is an area for further research.

40. William K. Everson to author (16 November 1984).

41. Don Juan (1926) became *Some of the Greatest* (1955), while *Old San Francisco* (1927) emerged as *Thrills From the Past* (1953). Other Youngson shorts include *An Adventure to Remember* (1955), adapted from *Isle of Lost Ships* (1929); *A Bit of the Best* (1955), from *Tracked by the Police* (1927); and

*Magic Movie Moments* (1953) from *Noah's Ark* (1929).

42. A few additional titles were later discovered in Burbank in Jack L. Warner's personal vault, along with a separate cache of silent feature and short comedies. Negatives to about 50 silent features which Warners' predecessor First National had distributed, but did not own, were deposited with George Eastman House in 1958.

Survival of Warner Films: Copyright Assignment from Warner Bros. Pictures, Inc. to PRM Inc., 23 July 1958, supplementing the original agreement dated 26 July 1956. Copyright Office Assignment Records, vol. 1015, 168–187. This document consists of two schedules, each listing four groups of titles marked with identification numbers preceded by A, B, C or D. I matched the titles listed in each group with the films (both original negatives and projection prints) subsequently shipped by United Artists Television, Inc. (successor to PRM) to the Library of Congress in 1970.

The 'A' list prove to be silent titles that do not survive. 'B' are early sound titles that do not survive. 'C' are silent titles with film material, and 'D' are early sound films surviving, but lacking a soundtrack. The second 'A' schedule includes four titles (including the 1924 Johnny Hines comedy *Conductor 1492*) footnoted as 'Film Property'. I have corrected the numbers in the table for these, and also deleted a few Chaplin films originally released by First National that were mistakenly included in the original assignment. The survival numbers are even more distressing when examined in detail, as 1925s eleven surviving titles include seven Lariat program Westerns released by Vitagraph. The films on these lists were originally released by First National, Associated Producers, Associated First National, Vitagraph and Warner Bros. There was one surviving title from Kalem, *From the Manger to the Cross* (1912), which I did not include on the chart.

While a 13 per cent survival rate might be understandable for such a large nitrate library in 1970, almost every title that was inventoried in 1958 was still in existence in 1970. It appears that the pictures were the victim of intentional destruction, or given the loss of so many of Warners' early sound films, there may have been some disastrous, but undocumented, fires.

43. Will Irwin, *The House That Shadows Built*, (New York: Doubleday, Doran & Company, 1928): 224–225.

44. Razor business: Roddy McDowell to author (28 August 1995).

45. Iris Barry, 'The Film Library and How It Grew', *Film Quarterly* (Summer 1969): 22.
46. Academy screenings: Held in the fall of 1947, the complete series consisted of *Wings*, *Seventh Heaven*, *Laugh Clown Laugh*, *The Fair Coed*, *Two Arabian Nights*, *Street Angel*, *Underworld*, *The Jazz Singer*, *The Way of All Flesh* and *Telling the World*. The films that were listed as unavailable were *The Last Command*, *Sunrise*, *The Dove*, *Tempest* and *The Circus*. Of these five films, all survive in 35 mm. *The Patriot* was an Oscar winner at the second ceremonies, and was shown in the continuation of the series in January 1948. 'Calendar of Screenings, Academy of Motion Picture Arts and Sciences, 1947-48', author's collection. Museum of Modern Art inquiry: Richard W. Nason, 'Emergency Operation: Campaign to Save Desiccating Movie Classics Begun by Film Library', *The New York Times* (9 October 1955).
47. James Card to author (7 November 1987).
48. Everson was researching films for potential use in *The Love Goddesses*, which was not released until 1965. William K. Everson to author (16 November 1984). Hazel Marshall: Robert S. Birchard to author (29 August 1996).
49. 'Changes in TV (Colour) and Films (Size) Up Film Interest in Video Rentals', *Variety* (21 October 1954).
50. Richard Griffith: Nason, op cit. James Card: Herbert Reynolds, "'What Can You Do for Us, Barney?'" Four Decades of Film Collecting: An Interview with James Card', *Image*, vol. 20, no. 2, (June 1977): 19.
51. As one example, silent film distributor Paul Killiam purchased Rupert Julian's *The Yankee Clipper* (1927), a Cecil B. DeMille production starring William Boyd. In the 1960s, Killiam edited the original negative from eight reels to five for use as a pilot for his television series *Hour of Silents*. Killiam kept the trims, and donated all of his material on the film to the American Film Institute in 1981. Paul Killiam to author.
52. MGM: Roger Mayer to author (29 May 1996).

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