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# ‘Certificated Operators’ versus ‘Handle-Turners’: The British Film Industry’s First Trade Union

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Jon Burrows

## **Abstract:**

This article examines the history of the British film industry’s first trade union: the National Association of Cinematograph Operators (NACO), an organisation for projectionists established in 1907. The deterioration in pay and working conditions experienced by projectionists following the advent of permanent cinemas is outlined, but, contrary to prevailing wisdom, it is pointed out that NACO was not actually formed in response to these developments. NACO pre-dated the growth of fixed-site film exhibition venues and the reasons behind its inception are explained in relation to the politics of the music hall industry. It is shown that the union’s executive steadfastly promoted a conception of projection work that was rapidly becoming anachronistic in several respects, and concentrated their campaigning efforts upon trying to police entry into the profession, primarily via a proposed parliamentary bill to make an annual examination of projectionists’ fitness to ‘strike the arc’ compulsory. It is argued that this was an inadequate and blinkered response to the increasing exploitation of projectionists as sweated labour, and also that NACO’s repeated denunciation of inexperienced projectionists as ‘handle-turners’ may have emboldened employers in their determination to drive wages down. Consequently, although NACO belatedly decided to relax its membership requirements, new subscriptions were in decline by 1912 and the union remained inactive throughout the First World War until it was wound up and replaced in 1919.

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A form of skilled labour that has underpinned the very existence of cinema since its inception has been largely obliterated in the space of a few years, as digital projectors replaced their celluloid predecessors. The vast majority of cinemas in the UK have taken advantage of certain opportunities provided by the digitalisation of projection—which simplifies or automates various key elements of this craft—to cut their salary costs by significantly downgrading the role and status of the projectionist and implementing wholesale redundancies. Clearly, this is an opportune moment to try to understand, explain and commemorate the nature of the onerous work undertaken by projectionists for our pleasure throughout cinema history, and to document their working practices and conditions. A closer examination of this history reveals that while the process of demotion and deskilling that we have seen in the present decade has dealt a terminal blow to the occupation, it is in many ways emblematic of the treatment of projectionists by their employers for over a hundred years. There are, in fact, a number of striking echoes between recent developments and the actual moment of inception of the vocation of cinema projectionist in Britain. The idea that the birth of the cinema projectionist was itself a moment of professional depreciation sounds like an oxymoron, but it is a consequence of the fact that the emergence of the cinema as an autonomous form of entertainment in this country took place more than ten years after photographic moving image projection was first introduced and commercially exploited. The most illuminating way of tracing the professional implications of this transition is via an examination of the history of the British film industry's first trade union: the National Association of Cinematograph Operators (NACO), specifically formed in 1907 to represent projectionists.

Michael Chanan observed in the 1970s that ‘one of the many neglected areas of study in British cinema is the history of conditions of labour and trade union struggle in the industry’ (1976: v), and this still remains the case some forty years later. The only significant scholarship on the British film industry’s trade unions is that written by Chanan himself, most notably a 59-page booklet intended by its author as an introductory ‘sketch’ of the subject (*ibid.*: vi). NACO has been praised by Chanan for certain tangible achievements: minimising the dangers of celluloid’s flammability through the provision of training schemes for projectionists, and successfully campaigning for

the closure of cinemas on Sunday to spare their members a seven-day working week (1980: 160, 259). But he makes a convincing argument that because it was constituted as a traditional craft union for skilled workers, NACO failed to exploit the opportunity to pressurise employers by mobilising in unison the larger ranks of unskilled cinema workers, such as cashiers, usherettes and cleaners, within the framework of a modern industrial union (1976: 15, 16).

In this article I will contend that the shortcomings of NACO are significantly more substantial than this verdict suggests. The account that follows will show that NACO actually took no part whatsoever in training projectionists and was belligerently antagonistic to anyone who did, and also that the role it played in agitating against Sunday opening was extremely limited and low-key. I will suggest that NACO ultimately represented a distinctly counterproductive false start for the emergence of trade unions in the British film industry. It was formed before the widespread advent of specialist fixed-site cinemas, and was extremely slow to understand how and why this development radically changed the conditions of employment for projectionists. Furthermore, it can be argued that the hostile rhetoric that NACO repeatedly used to stereotype new entrants to the field of film projection as incompetent amateurs may have emboldened many cinema owners in their determination to set salary levels for projection work no higher than a common labourer's wages.

Prior to the cinema boom, films were exhibited primarily within travelling shows or as part of the mixed bill of entertainment presented at music halls (Bromhead 1933: 4), and commonly targeted at middle-class spectators (Brown 2004: 79–80; Burrows 2010: 355–6). The work of a projectionist during this phase of vagrant/impermanent film exhibition was particularly varied and testing. The word 'projectionist' is an invention of the 1920s; those we now call projectionists were originally known as 'operators', and the relative vagueness of this term was probably considered semantically useful, because operators might typically operate complex machinery other than the projector. Writing in 1906, Emile Lauste defined an operator as 'a man who can photograph, develop, print and project, with an exceptional experience of electricity and oxy-hydrogen work, and able to repair or make his own machines'.<sup>1</sup> Many forms of film show at this time would regularly feature locally shot actuality material and the operator might be tasked with shooting, developing and projecting this footage. There were various other highly demanding and challenging aspects of the job of the operator that were common within the pre-1909 period. Operators who had to travel across the country for short engagements

would often encounter situations in which they arrived at a venue with little time to spare before the show. They had to perform a complete equipment installation from scratch, erecting a screen and setting up the projector to produce optimum image size and clarity in an auditorium that might present a radically different shape and size to their last engagement. Mastery of a variety of illumination technologies was essential: different venues would have different forms of electricity supply; many would have no electricity at all.<sup>2</sup> And early projectors were imperfect and erratic. The operator needed to be intimately familiar with their projector, and travelling operators often owned the machine they used.<sup>3</sup>

*The Bioscope's* regular technical correspondent described in 1910 a 'time, not long past, when an amount of mystery surrounded the working of a projector, and when the wonderful man who could operate a picture machine was looked upon by his friends and acquaintances as being little short of a perfect genius'.<sup>4</sup> The job obviously required considerable mechanical knowledge and demanded high levels of flexibility and initiative, and it was consequently relatively lucrative work in the era before cinemas. Various sources suggest that a common rate of pay for an operator in the mid-to-late 1900s was 60 shillings (£3) a week.<sup>5</sup> To put this into context, the average weekly wage in Britain between 1905 and 1909 was around 36.5 shillings (£1 16s. 10d.) (Feinstein 1990: 609). A trade paper editorial piece in early 1908 confidently asserted that 'the man who is prepared to conscientiously apply his mind and energy to the work of operating a machine can reasonably expect to be well paid for his trouble', and went so far as to predict that the 'operator of the future will be a man of dignity, justifiably proud of holding a position sought after by many, but held by few; whilst the audience before whom he will have to appear will often be of a select and highly educated class'.<sup>6</sup>

Needless to say, this was not an accurate forecast of how the British film exhibition industry was imminently set to evolve. The year 1909 saw the emergence of the first significant numbers of fixed-site picture theatres and the beginnings of a transformation of the cinema into a mass medium offering cheap entertainment, primarily for the benefit of working-class audiences. Despite the fact that similar developments in continental Europe and the United States pre-dated the British cinema boom by several years, this outcome was not anticipated by any native trade commentators.

Timothy Barnard has observed that the mass expansion of the film exhibition sector on both continents quickly resulted in a

'proletarianisation of the operator' (2002: 50), with regard to both pay and working conditions. It has been assumed that NACO was established in direct response to changes in operators' terms of employment once 'film exhibition took on a new shape' (Chanan 1980: 258; see also Barnard 2002: 42, 49), but the key dates simply do not match up. NACO was formed on 5 April 1907.<sup>7</sup> Early examples of permanent cinemas in converted shop fronts did exist by this juncture, but it can be ascertained that by the summer of 1907 there were no more than twelve storefront cinemas throughout the whole of London (Burrows 2004: 79), and only a handful of limited liability companies involved in the field of film exhibition had been set up nationally before 1909.<sup>8</sup>

If the unionisation of projectionists was not a reaction to the cinema boom, we obviously require a different explanation as to the circumstances that precipitated an organisation of film industry labour at this particular juncture. Rachael Low has previously speculated that NACO's formation may have been opportunistically inspired by the recent activities of the Variety Artistes' Federation (VAF), a new union representing music hall performers, which had called a highly publicised and well-supported two-week strike action at London's variety theatres in January 1907, and thereby successfully pressurised employers to sign agreements concerning minimum rates of pay and working hours (1949: 71). The centrality of the music hall industry to the aims and ambitions of NACO's founders is partly reflected in the fact that it was set up as a branch of the main union for backstage theatre workers, the National Association of Theatrical Employees (NATE), established in 1890. It was actually suggested by contemporary trade commentators that NACO had been specifically established by NATE to suit the latter's needs: some music halls had remained open during the first week of the VAF strike by replacing live acts with longer cinematograph turns, and therefore unionisation of the operators was a simple means of being able to ensure that all key theatre workers could be called upon to respect any similar strike actions in the future.<sup>9</sup>

A summary of NACO's principal goals published in late 1908 stated that:

The Association aims at enrolling all qualified operators for their mutual benefit and protection, to assist them to keep in touch with improvement and new inventions connected with their business, and to protect them against the amateurs who unfairly compete with the operator dependent upon his skill for a living.<sup>10</sup>

The latter statement was specifically framed in response to the fact that a number of music halls had begun to replace their specialist operators with existing theatre electricians, who could combine the two roles in return for a modest weekly salary increase.<sup>11</sup> Diatribes against theatre electricians usurping projectionists were a dominant feature of NACO's public pronouncements throughout its first five years of existence.<sup>12</sup> Anyone relatively new to the business of film projection was effectively prohibited from joining NACO: membership was restricted to established operators over 21 years old who either had at least two years' experience of theatre/music hall projection or who had been professionally exhibiting longer touring shows before the public for a minimum of eighteen months.<sup>13</sup>

NACO's most conspicuous initiative to emphasise the claims to entitlement of 'veteran' operators was a qualification scheme announced in October 1907.<sup>14</sup> The union produced a postal examination paper made up of 69 questions concerning limelight and electric illumination, optical principles, film repair and safety precautions;<sup>15</sup> attaining a grade of at least 50 per cent or 75 per cent or over, respectively, resulted in the award of a Class B or Class A certificate demonstrating the holder's proficiency to operate.<sup>16</sup> When it became clear in 1909 that a national licensing act to improve safety at film shows was going to be introduced by parliament, NACO lobbied the London County Council (LCC) to urge that, under the cinematograph regulations local authorities would henceforth be empowered to implement, it should be made compulsory for all projectionists to hold a NACO certificate. Chanan has suggested that NACO had a just and compelling case on safety grounds but were thwarted by the legislators' desire to protect 'commercial interests' (1976: 15). In fact, the LCC's Chief Fire Officer rejected NACO's proposal because he felt that the exam's strong emphasis on technical theory potentially presented an unfair obstacle to employment for those without a certain level of education, reasoning that 'there would probably be a great many candidates who could not correctly answer more than 20% of the questions, and yet, so far as public safety is concerned, might be regarded as competent operators.'<sup>17</sup>

It's hard not to see NACO's efforts to carefully police entry to the operating profession as somewhat ill-fitted to the challenges presented by radical changes to the employment market for projectionists that followed the rapid spread of fixed-site cinemas from 1909 onwards. The passing into law of the Cinematograph Act 1909, in January 1910, stimulated the investment of large sums of capital into the construction of purpose-built cinemas (Burrows 2004: 85–6; Burrows

and Brown 2010: 9), but, prior to this, the first significant numbers of cinemas to be established in some of the major cities of England took the form of small converted shop fronts, typically accommodating between 50 and 300 spectators and charging as little as one penny for admission. Projection arrangements in such venues were sometimes distinctly makeshift. A report commissioned from the Birmingham City Surveyor's Office in late 1908 documented the following primitive conditions at a former shop in Digbeth:

Lantern placed on wood box on show board of window, and wall of shop whitewashed forms screen; picture about six feet by nine. Heads of those sitting in front row on picture screen; two gas lights in shop turned out when picture being shown; length of rubber tube from gas pendant in shop window supplies light to lantern. No spool cases; naked spool of film on bracket over projector passes through gate, then through hole in box to another spool on nail; boy turning spool to wind up slack.<sup>18</sup>

A fire officer's assessment of a shop show in Hackney, east London, logged in January 1910, tells us that the throw from the projector was so weak that a wet translucent screen had been hung in the middle of the auditorium, with one half of the audience facing the other, and watching a reversed image.<sup>19</sup> While the new breed of cinema entrepreneurs may have been willing to tolerate relatively low standards of projection quality, they typically expected significantly longer working hours from their operators. Generating profitable ticket sales at penny prices with a tiny auditorium was practically impossible if the standard live theatrical format of one or two performances per evening was adopted. Consequently, shop-front cinemas pioneered the concept of the continuous performance, maximising revenue by constantly admitting customers throughout the day. This would commonly require the projectionist to work continuously from lunchtime until very late at night.

The initial spread of fixed-site cinemas was responsible for a marked deterioration not only in working conditions, but also salaries. The film industry trade papers received numerous letters from disgruntled operators in 1909 protesting about declining pay.<sup>20</sup> As one correspondent from London explained:

I find that even if I refuse a salary very comfortably under £3, it means that I join the ranks of the unemployed, and I am an operator of many years, not a few weeks' standing, thoroughly competent and practical in operating, photography, optics and electricity, also building and repairing machines ... As an instance of the wonderful salaries we can command, I may mention that some time ago I took an outfit to a

new concern up North to fit up and set it going. Having done so, the proprietor asked me to stay on with him. I did so, but he would not pay more than £2. For that I had to give shows from about mid-day until 11 or 12 p.m., and pay my own travelling expenses (we were doing one or two pitches per week). After the show had been running a couple of months or so, the boss was told by another in the business that he could get a man (I won't say operator) to operate, help build up and pull down, and be a general navvy for 25s. per week. He came to me in a shamefaced way and told me about it, saying that he had someone coming to take my place. He guessed it was no use asking me to accept the terms he offered.<sup>21</sup>

A 25-shilling pay packet was five shillings less than the average weekly wage for an unskilled labourer in London at this time (Hunt 1973: 92). Similar conditions were reported in an unnamed Northern town:

I know also of an Operator (?) in the same town, sticking his head out of the hole in the box, to focus with a pair of opera-glasses, and working at a reduced salary, whilst a few reliable men who are willing to work and project to perfection, but who will have their price, are walking about doing nothing. I think that our local authorities should certainly put a stop to the numerous inexperienced men and youths who are posing as operators in the North of England, and who hardly know the difference between a bioscope and a mangle.<sup>22</sup>

The era in which penny shop-front cinemas predominated was fairly short-lived, but the introduction of the Cinematograph Act stimulated an even more intensified period of mushroom development for the industry between 1910 and 1914, with over 1,700 limited liability companies being formed in England during this five-year period for the purpose of running cinemas, representing a combined authorised capital in excess of £10 million (Burrows and Brown 2010: 10–12) – a figure roughly equivalent to over £900 million in today's money. This investment produced significant improvements in cinema architecture, but the court case reports and correspondence pages of the trade press suggest that it did nothing to arrest the steep material decline in terms and conditions of employment experienced by projectionists since 1909.<sup>23</sup> A couple of years into the boom, the current president of NACO, Edward H. Mason, offered the following reflections on how the industry, and the operator's place within it, had been utterly transformed:

With [the picture palace's] advent the whole condition of employment changed. Bioscope schools followed quickly in its wake, and boys were turned out by the hundred with just sufficient knowledge of the

profession to carbon the lamp, strike the arc, thread the machine and turn the handle. These entered into unfair competition with the men who had had years of experience. The abnormally rapid growth of the continuous show left many small employers struggling for existence; they eagerly embraced the opportunity of employing the cheapest labour they could command, satisfied if a picture of some sort was put upon the screen, so long as they could manage to keep afloat. Some big syndicates did not scruple to subordinate everything to the desire to pay huge dividends, and the employee was sweated to that end. These are the causes which have been responsible for the gradual deterioration of the profession, and unless this downward tendency is checked, it will not be long before the experienced man seeking a fair remuneration for his services will be driven out of the profession altogether. Six years ago the operator's average rate of pay was £3 per week, and that for a show lasting at the utmost limit two hours, and more often than not, not more than twenty minutes. Today the average rate of pay is £1 10s. for a continuous show of nine hours a day or more. I am not stating that no operator receives more than this amount for his services, but I am *averaging* the earnings of operators generally. There are dozens of cases brought to the notice of the N.A.C.O. by members who have been offered 25s. per week for a continuous show, and advertisements are continually appearing where even a lower wage is offered.<sup>24</sup>

In several respects this is a compelling and no doubt accurate analysis of the downturn in pay and working conditions experienced by projectionists, but it is important to note that it took until November 1911 for a NACO official to make any public criticism of the culpability of cinema owners. Mason's scathing reference to 'bioscope schools' is telling in this respect, because NACO's first response to signs of change in the profession had been to point the finger of blame squarely at new entrants to the field and a number of commercial vocational facilities established to train them. In March 1909—anticipating that the existing labour pool of skilled operators would need to be augmented to meet the needs of the expanding fixed-site cinema sector—the London Bioscope School opened for business in Covent Garden, offering a course of 24-hour-long classes of practical and theoretical training in the art of film projection.<sup>25</sup> It was gradually followed by a raft of metropolitan and regional imitators, such as the London Cinematograph College and Situations Bureau, the Cecil Court Bioscope School, the London and Provincial Bioscope and Electrical School, the American Bioscope School, the American Animated Picture Company (Manchester), the Leeds Bioscope School, and the Modern Bioscope School (Glasgow).<sup>26</sup> Chanan has suggested that these 'dubious' enterprises were always short-lived, 'since the

training they offered was so poor' (1976: 15). It is true that a couple of provincial operating schools in Wolverhampton and Manchester swindled their clients and were prosecuted in the courts for fraud,<sup>27</sup> but the London Bioscope School had a lifespan of at least four years, and the chief instructors employed there included James W. Barber, an electrical engineer who was the author of two frequently reprinted electrical manuals for operators (Barber 1911, 1912) and also S. J. H. Henry, formerly the first General Secretary of NACO.

Henry's defection from NACO to the London Bioscope School had been acknowledged as a bitterly resented 'blow' for the union, throughout the first few years of the cinema boom it repeatedly characterised these schools and their pupils as the chief cause of the proletarianisation of the operator, and campaigned vociferously against them. According to Mason, 'that bioscope schools are responsible for the present low rate of pay is beyond controversy,'<sup>28</sup> the basis of this argument being a claim that 'graduates from the schools for the sake of [gaining] experience, offer their services for a low wage'.<sup>29</sup> Aside from the fact that one might reasonably object that employers were effectively being absolved of blame by this rhetoric, there is also reason to doubt that school-trained operators had quite the level of impact on the labour market that NACO suggested. The letters pages of the trade papers regularly featured complaints from bioscope school teachers and graduates that cinema managers consistently refused to hire them.<sup>30</sup> A lecturer at a Scottish bioscope school expressed his exasperation at, and incomprehension of, the situation:

For a time we thought the difficulties as regards pupils getting a situation were over, but not so. Some excuse was always invented; either the applicant had no experience of the particular machine installed in that hall or he had not had sufficient experience. In many cases no reason at all was given.<sup>31</sup>

It is conceivable that the schools were frowned upon by cinema managers partly on account of (1) relentless bad publicity from NACO, and (2) because their qualifications made graduates less attractive to employers determined to treat operators as unskilled labourers.

It is understandable that NACO would resent the competition from for-profit organisations pursuing rival certification schemes. But it was an inescapable fact that the rapid expansion of the film exhibition sector demanded an enlarged workforce, and it could be argued that the union did not responsibly face up to the challenge of how prospective operators might be fairly trained and hired. Four-

### *The British Film Industry's First Trade Union*

six-week training programmes for projectionists were denounced as totally inadequate, with NACO's first president continuing to assert that:

An operator is a man who can work on any voltage or any machine from a Chrono to a Walturdaw, from an Edison to a Kineto, a man who, when his employer says, I want you to go to such a place and give 1 two-hours' show in the Corn Exchange, the voltage is 220 (either current), take what resistance you require and catch the 9.20 train in the morning, can pack up his entire outfit, proceed on his journey, and give an exhibition that is a credit to himself and the firm he represents: and then go on to another town the next day and give a show in a drawing-room, with limelight, with the same results. Let him do this night after night for a year or two and he can call himself an operator: and I ask any exhibitor who wants a good operator which would he rather like if two men come after a job – No. 1, who says: 'I have never worked a public show, but I hold a certificate from the School of Instruction, where I served a month or so'; or No. 2, who says 'I was 12 months with a travelling company, two years with music hall work'.<sup>32</sup>

The reality was that many of the skills described here had limited relevance to the era of permanent projection installations, and the supply of men with this level of experience was totally insufficient to service the industry's growing needs. It was not until 1911 that NACO broached a proposal of its own to address the demand for new operators: the introduction of a regulated apprenticeship system.<sup>33</sup> However, there is no evidence to suggest that the idea was ever developed and drafted beyond its initial announcement.

From 1911 onwards the union's campaigning energies were primarily devoted to a new scheme for regulating an operator's fitness to practise. This essentially revisited the efforts made in 1909 to make the employment of NACO-certificated projectionists compulsory by law. The union drafted a 'Kinematograph (1911 Public Safety) Bill' proposed for introduction by the House of Commons as an amendment to the Cinematograph Act. It would require all operators to undergo an annual examination – conducted by an independent panel – in order to guarantee the safety of the cinema-going public, on the principle that 'in professions in which responsibility as to damage to persons or property is involved, the Law requires all persons engaging in or wishing to engage in such professions, to be examined by skilled and competent examiners, as in the case of physicians, surgeons, dentists, motor-car drivers, etc.'<sup>34</sup> The certification proposals encountered hostility from many projectionists. Particular outrage was expressed that (1) the minimum age for a licensed operator was fixed

at 21; (2) six-month licence suspension penalties were recommended as punishment for negligent performance of duties; (3) in order to fund the costs of such a scheme, the operators would effectively have to pay for the right to work, with a £1 application fee and a ten shilling annual renewal fee being proposed.<sup>35</sup> One objector commented that:

We in the profession were always under the impression that the organising of the N.A.C.O. was for the purpose of raising the status and putting every advantage in the path of the operator. But under the proposed new Bill, the object of the Association would appear to be to put every obstacle in his way.<sup>36</sup>

Edwin S. Catlin, the founding president of NACO, attempted to justify and rally support for this ill-fated idea in the following terms:

Look at the list of operators advertising in the KINEMATOGRAPH WEEKLY wanting work; good men out of employment, whilst duds run the shows. Let them bear this in mind when the Bill is perfect and made law, as it will be in time. Then you will find the right man in the right place; I mean the competent operator, not the handle-turner. Why, Sir, I know of so-called picture palaces where a boy is operator at 14s. per week, including Sundays, whilst the good man is out of work. The only thing I can see to remedy this is the licensing of operators.<sup>37</sup>

NACO officials repeatedly used the derogatory sobriquet of ‘handle-turner’ to describe neophyte operators—particularly those trained at bioscope schools—implying that they were capable only of the menial labour of hand-cranking film through a projector.<sup>38</sup> One might reasonably argue that, by denigrating the majority of people working as projectionists, this rhetoric ultimately played into the employers’ hands. It effectively endorsed the idea that most operators were unskilled drudges, and unworthy of a better rate of pay.

NACO members frequently decried the union’s effectiveness in protecting them from unscrupulous employment practices. There was vociferous criticism, for example, of NACO’s apparent slowness to speak up and take action to protect them from the prospective hardships of a seven-day working week for six days’ pay.<sup>39</sup> This problem—predominantly confined to London—was addressed by the introduction of the Cinematograph Act in January 1910. Under the powers granted to it by the Act, the LCC issued a regulation prohibiting the opening of cinemas for profit on Sundays; such venues could be rented out for weekly charity performances on the Sabbath, but this was conditional upon regular cinema employees having the

right to voluntarily opt in or out of Sunday work. Some employers were subsequently accused of forcing their staff to work for no extra pay and then to sign a declaration that they did so willingly,<sup>40</sup> but the comprehensive archive of correspondence and deputations received by the LCC reveals that it was primarily NATE which campaigned on this issue; NACO's involvement was, to put it kindly, minimal.<sup>41</sup>

The rumblings of discontent among NACO members extended to criticisms that it showed no interest in the affairs of operators working in the provinces,<sup>42</sup> and provided insufficient services to justify its 1s. 6d. monthly subscription charges.<sup>43</sup> NACO's low profile and lack of visible activity during the first phase of the cinema boom led one concerned member to enquire if the union had, in fact, ceased to exist.<sup>44</sup> The general lack of faith in NACO among projectionists is most clearly demonstrated by its extremely modest enrolment figures. By the time of its third anniversary, the union had managed to recruit only 200 men. This was estimated to represent only 5–6 per cent of the total number of people then working as projectionists in Britain, and, as one of the guests of honour at its annual luncheon commented: 'The progress was not at all adequate.'<sup>45</sup> NACO continued to steadily expand over the next few years but hardly kept pace with the exponential growth of the industry. Total subscriptions had reached 350 by April 1911 and just under 550 a year later.<sup>46</sup> In early 1912 it was finally accepted that NACO's structural constitution was unfit for purpose in the era of fixed-site cinemas. A report proposing radical changes to the organisation noted that:

When the Association was founded less than five years ago, the continuous show of the present day was not in existence. A few shop shows had made an appearance, but that was the extent to which the modern picture palace had attained. In those days an operator had to be prepared to carry everything necessary for an exhibition with him, to fit up under any and every condition, and change from lime to electric illuminant as often as the circumstances required. This man was an operator in the true sense of the word. Modern conditions have modified the operator's existence. The picture palace of the present day is fitted with every appliance for giving a perfect show under ideal conditions, and has called into existence an operator who is qualified to meet the demand, but would be perfectly useless under the old ones ... Under the old constitution of the Association, the fully qualified man, who was prepared to go anywhere and do anything bioscopic, was alone recognised; under the new, all engaged in projection work will be recognised and graded into classes, so that the sometime complaint that was levelled against the Society of exclusiveness is swept away.<sup>47</sup>

Two additional classes of operator were recognised under the new rules: 'Assistants', who were at least eighteen years old and had been working in cinemas for six to twelve months, and 'Juniors', in the same age bracket, who had just begun working in the projection box. The condition of eligibility for the original 'Class A' membership status was simultaneously reduced to twelve months' experience rather than two years. These were all sensible moves, but they seem to have been implemented too late in the day to persuade non-union operators that NACO could effectively represent their interests. For the growth rate of NACO actually started to decline in 1912: only 116 new members joined the union in the twelve months following this radical expansion of the membership franchise, compared with nearly 200 new recruits in the preceding year.<sup>48</sup> The figures suggest that NACO had come to be regarded with disdainful mistrust by the majority of operators by this stage, and also perhaps underline just how unpopular its proposed licensing scheme was.

The inevitable demise of NACO was as low-key as much of its operational activity had been. Throughout the duration of the First World War no public statements were issued and no meetings were held. Disgruntled members who wrote in to the trade press to complain that they had received neither news nor replies to queries from their union were assured that it still existed<sup>49</sup> but it was subsequently admitted by the General Secretary that 'the work of organisation remained dormant throughout the war, owing to restrictions and other hindrances which were entirely out of our control.'<sup>50</sup> This disclosure accompanied a declaration in June 1919 that NACO was now 'fully awake, working and alive', but the claim can be seen as something of a sleight of hand on the part of the parent union NATE, perhaps to avoid acknowledging the ignominious fact that NACO in its original form had become unsustainable. For in the same breath it was announced that NATE was reorganising its cinema branch to represent all members of cinema staff – ticket sellers, ushers, doormen and cleaners – alongside projectionists. By this stage the Electricians' Trade Union (ETU) had decided to open its doors to operators; a bitter and distracting battle between NATE and the ETU for the right to represent projectionists was thus inaugurated and would rumble on for several decades. A revival of the NACO correspondence exam paper inaugurated back in 1907 was announced in 1919<sup>51</sup> and was issued once more the following year,<sup>52</sup> but the distinct branch name was otherwise never used by NATE again.<sup>53</sup>

One might explain the failure of NACO as an unusual case of premature unionisation. Its founding aims and objects were swiftly

rendered anachronistic by the rapid and radical transformation of the cinema industry after 1909, and its executive appeared to be constitutionally incapable of accepting and adequately confronting the consequences of the downward social mobility of the profession. Harsh characterisations of NACO policy as the product of 'a few sore-heads of can't-be-done without operators, who have been dethroned from high positions, [and] cry out for a monopoly' contained more than a grain of truth.<sup>54</sup> One exasperated trade paper columnist showed a clearer-sighted and fairer understanding of the kind of attitude that needed to be adopted in responding to criticisms that the press were betraying established projectionists by offering technical advice to inexperienced readers:

None looks forward more than we do to the time when all operators will be perfect but we realise that at the moment we have to put up with the defects of individuals ... There are relatively few operators whose experience dates from the inception of cinematography. Generally from two to four years is the length of experience of the average operator, and it is for this reason that we desire to help rather than to retard the advancement of any individual employed in the industry. We want operators to view things from a different perspective, to get down from the housetops of egotism, and to help, not necessarily their inferior, but their less fortunate brethren.<sup>55</sup>

In the protracted absence of any similarly reasonable and pragmatic approach on the part of the operators' union, no effective protection was offered to the many workers who appear to have been increasingly treated as sweated labour as the cinema boom progressed. In response to one cinema owner's suggestion that projectionists could not reasonably expect to be paid more than a basic mechanic's salary, an exasperated employee from Wolverhampton pointed out that:

An ordinary skilled mechanic is not working in the heated atmosphere of 90 to 100 degrees, with a 4,000 to 5,000 candle-power light under his eyes for ten hours per day (Saturdays, and, in numerous cases, Sundays included); that when a mechanic has finished his day's labour he is at liberty to seek a full night's enjoyment, whilst his more 'fortunate' brethren, the operators, are still perspiring, in some cases in a box not sufficiently large to turn around in comfort, projecting pictures he has seen a dozen or more times previously.<sup>56</sup>

The uncomfortable and exhausting nature of the work was a common complaint, and the levels of demoralisation felt within the profession by late 1914 are eloquently expressed by one sufferer in a heartfelt poem called 'The Operator':<sup>57</sup>

Never give the beggar best –  
'E' s a low-born Operator.  
Leave 'im no more chance of rest  
Than a bloke on Etna's crater.  
If a film be scratched or worn,  
If a sprocket-hole be torn –  
Well, It's no concern of your'n.  
Kick the poor old Operator!

I'm here alone in a fireproof box that is hot as  
a stokehole floor,  
And my head goes round to a clicking sound  
and a rickety motor's roar.  
And my nose smells FILMS, and my tongue  
tastes FILMS,  
And my eyes they can see FILMS too,  
Till I'm sick unto death at the thought of  
F I L M S  
(Convict-son-shot-by-his-father FILMS),  
(Out-of-work-burgles-a-bunshop FILMS),  
And – Oh, rattle that programme through!

I've spoiled my life, and I'm sorry now, but my  
sorrow has come too late;  
And I'm only fit to be pulling films through the  
slits of a rusty gate.  
And all for the sake of mother and home and  
twenty-five shillings a week.  
I'm working here up to my neck in FILMS  
(Outlaw-redeemed-by-a-baby FILMS)  
(Thunder-and-blood-and-sensation FILMS),  
And – Oh, lor'! How that belt does creak!

I've broken films and I've mended films till my  
fingers are skin and bone;  
But the crowds that go to each picture show  
never think how a film is shown.  
And when I'm asleep I shall dream of films –  
though it's little of sleep I take,  
Through nightmare that cumbers my bed with  
F I L M S  
(Redskins-attacking-the-white-folk FILMS)

*The British Film Industry's First Trade Union*

(Mother's-lost-ninepence-at-ludo FILMS),  
And – Confound it! Another break!

I have to pay if a thing goes wrong, for the  
management dock my screw;  
It's a penny a rack and a penny a break, though  
the programme is far from new.  
And never iron has entered a soul as the celluloid's  
entered mine.  
It's, Oh! to be shot of the sight of films  
(Comic-chase-over-the-housetops FILMS)  
(Ought-to-be-cut-by-the-Censor FILMS),  
And – A carbon's gone – Sixpence fine!

I'm wet with oil and I'm choked with dirt till I  
haven't the heart to eat;  
It's a joy to know where the bad folks go that  
a film couldn't stand the heat.  
To be clear of films, to be rid of films, would be  
happiness grand and true.  
Sometimes I hardly can breathe for FILMS  
(Railway-and-Injun-and-Cowboy FILMS)  
Tragedy-Comedy-Scenic FILMS),  
And – Thank Heavens! The programme's  
Through!

Now rewind the films once more  
Like a careful Operator.  
Patch 'em nicely where they've tore  
Or they'll blame the Operator.  
Never mind your aching head,  
Think about your Films instead.  
Then they'll let you go to bed;  
Ain't you grateful, Operator?

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**Notes**

1. *OLCJ*, February 1906, p. 81.
2. For a detailed account of the tribulations of the travelling operator, see *KLW*, 28 March 1912, pp. 1205, 1207.

3. The pre-1909 trade press listings of vacant engagements for operators frequently specify that the successful applicant must supply their own projector (see, for example, *Bio*, 2 October 1908, p. 22).
4. *Bio*, 24 November 1910, p. 21.
5. *KLW*, 7 June 1907, p. 51; *Bio*, 4 February 1909, p. 5; *KLW*, 30 November 1911, p. 219.
6. *KLW*, 13 February 1908, p. 235.
7. *OLCJ*, April 1907, p. 151. For its first few months of existence NACO was known as the Bioscope Operators' Association (BOA); the name was changed to avoid confusion with the acronym for the British Optical Association (*KLW*, 27 June 1907, p. 97).
8. *FT*, 11 June 1914, p. 6.
9. *OLCJ*, February 1907, p. 87; April 1907, p. 151.
10. *Bio*, 6 November 1908, p. 18.
11. *KLW*, 30 May 1907, p. 37; 7 June 1907, p. 51.
12. See, for example, *Bio*, 4 March 1909, p. 12; 13 May 1909, p. 23; 16 September 1909, p. 23; 26 October 1909, p. 289; *KLW*, 8 April 1909, p. 1375; 12 October 1911, p. 1305; 25 January 1912, p. 679.
13. *Bio*, 9 September 1909, p. 45.
14. *KLW*, 24 October 1907, p. 416. This scheme was developed in response to a rival qualification for operators introduced several months earlier by the Kinematograph Manufacturers Association (KMA—the trade body representing the interests of British film producers) in conjunction with the Technical Optics department of the Northampton Polytechnic Institution in Islington (*KLW*, 25 July 1907, pp. 185–6). The KMA qualification involved a practical examination held at the Northampton Institute, which effectively served to confine its purview to operators working in London (*Bio*, 24 December 1908, p. 13). It was introduced ‘with the object of preventing panic’ among the public regarding fire risks at film shows (evidence of Joseph Brooke Wilkinson to Parliamentary Select Committee, 30 June 1914, transcribed in *Reports and Special Report from the Select Committee on London County Council (General Powers) Bill [Part VI]*, etc., London: HMSO 1914: 284). Following an initial phase of bitter rivalry between the two schemes (see, for example, Minutes of LCC Theatres and Music Halls Committee, 11 December 1907, LCC/MIN/10,728), the fact that the principal of the Northampton Institute, Dr Robert Mullineux Walmsley, was a guest of honour at the 1911 NACO annual lunch suggests that a rapprochement was ultimately reached (*KLW*, 27 April 1911, p. 1719). Nonetheless, the launch of the KMA’s proficiency test provoked immediate criticism of NACO from some operators on the grounds that the union should have been first to introduce such an initiative (*KLW*, 8 August 1907, p. 195).
15. Papers of London County Council Theatres and Music Halls Committee, item 10, 01/12/1909, LCC/MIN/10,934, London Metropolitan Archives.
16. *KLW*, 1 February 1912, p. 741.
17. Memo from S. Sladen to LCC Theatres and Music Halls Committee, 23 November 1909, item 10, LCC/MIN/10,934.
18. Quoted in *BM*, 7 July 1922, p. 9.
19. Report by S. Sladen for LCC Theatres and Music Halls Committee, 17 January 1910, item 4(3) LCC/MIN/10,935.
20. See, for example, *Bio*, 20 May 1909, p. 23.

## *The British Film Industry's First Trade Union*

21. *Bio*, 28 October 1909, p. 15.
22. *Bio*, 4 November 1909, p. 51.
23. *Bio*, 28 April 1910, p. 55; 14 July 1910, p. 39; 28 July 1910, p. 55; 19 October 1911, p. 179; 13 February 1913, p. 487; 27 March 1913, p. 987; 16 April 1914, p. 310; *KLW*, 3 August 1911, p. 661; 15 February 1912, p. 839; 25 December 1913, p. 48; *Cin*, 12, 1912, p. 91; 5 March 1913, p. 41.
24. *KLW*, 30 November 1911, p. 219.
25. *Bio*, 4 March 1909, p. 21; 18 March 1909, p. 10.
26. *Bio*, 2 June 1910, p. 66; 18 August 1910, p. 58; *KLW*, 16 February 1911, p. 977; *MCLGA*, 1 June 1911, p. 9; *YPLI*, 14 December 1912, p. 4; *DR*, 5 January 1914, p. 10.
27. *WC*, 3 May 1911, p. 3; *MCLGA*, 1 June 1911, p. 9.
28. *KLW*, 23 February 1911, p. 1065.
29. *Ibid.*, p. 1067.
30. See, for example, *Bio*, 8 August 1912, p. 435; 15 August 1912, p. 471; 20 February 1913, p. 582; 6 March 1913, p. 723; *Cin*, 19 February 1913, p. 21; 26 February 1913, p. 25; 5 March 1913, p. 25.
31. *Bio*, 6 March 1913, p. 723.
32. *Bio*, 29 April 1909, p. 13.
33. *KLW*, 2 March 1911, p. 1142a.
34. *KLW*, 12 October 1911, p. 1345.
35. *Bio*, 19 October 1911, p. 179; *KLW*, 19 October 1911, p. 1357; 26 October 1911, p. 1422.
36. *KLW*, 19 October 1911, p. 1357.
37. *Ibid.*
38. See, for example, *Bio*, 30 September 1909, p. 51; 9 February 1911, p. 3; *KLW*, 22 February 1912, p. 937.
39. *Bio*, 20 January 1910, p. 61; *KLW*, 17 February 1910, p. 829.
40. Letter from W. Johnson to LCC Theatres and Music Halls Committee, 5 October 1911, item 21, LCC/MIN/10,951.
41. From 1909 to the end of 1914, NACO corresponded only twice with the LCC's Theatres and Music Halls Committee on the issue of Sunday labour: once to protest that the 'Bioscope Operators' Benevolent Fund' charity, which received a licence to organise shows at a cinema in Greenwich, was bogus (letter from A. Malcolm to LCC Theatres and Music Halls Committee, 1 March 1910, item 3(294), LCC/MIN/10,936), and once to object to a proposal that the limited opening hours of Sunday shows might be extended (letter from E. H. Mason to LCC Theatres and Music Halls Committee, item 6, 7 December 1911, LCC/MIN/10,956).
42. *Bio*, 6 May 1909, p. 25.
43. *Ibid.*, p. 23.
44. *Bio*, 29 July 1909, p. 39.
45. *KLW*, 21 April 1910, p. 1323.
46. *KLW*, 27 April 1911, p. 1718; 2 May 1912, p. 75.
47. *KLW*, 1 February 1912, p. 741.
48. *KLW*, 6 February 1913, p. 1529.
49. *KLW*, 28 February 1918, p. 73–4.
50. *KLW*, 26 June 1919, p. 125.
51. *KLW*, 19 June 1919, p. 117.
52. *KLW*, 11 March 1920, p. xix.

53. NATE was eventually renamed as the National Association of Theatrical and Kinematograph Employees (NATKE) in July 1937.
54. *Bio*, 9 November 1911, p. 439.
55. *Bio*, 28 September 1911, pp. 687, 689.
56. *Bio*, 27 May 1913, p. 987.
57. *Bio*, 22 October 1914, p. 340.

### **Newspaper/periodical abbreviations**

<i>Bio</i>	<i>The Bioscope</i>
<i>BM</i>	<i>Birmingham Mail</i>
<i>Cin</i>	<i>The Cinema. News and Property Gazette</i>
<i>DR</i>	<i>Daily Record</i>
<i>FT</i>	<i>Financial Times</i>
<i>KLW</i>	<i>Kinematograph and Lantern Weekly</i>
<i>MCLGA</i>	<i>Manchester Courier and Lancashire General Advertiser</i>
<i>OLCJ</i>	<i>Optical Lantern and Cinematograph Journal</i>
<i>WC</i>	<i>Wolverhampton Chronicle</i>
<i>YPLI</i>	<i>Yorkshire Post and Leeds Intelligencer</i>

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### *The British Film Industry's First Trade Union*

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