Now is the Time (to put on your glasses):
3-D Film Exhibition in Britain, 1951-55

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That 3-D was even tried on a significant scale demonstrated how desperate exhibitors of the early 1950s were for something new... By mid-1954 it was clear that with all the expense involved with special attachments to projectors and glasses issued to patrons, the added revenues from 3-D never proved worth the investment.¹

Three-dimensional film rarely gets the coverage within film history offered to other, more successful, technologies of the 1950s. What academic coverage there is of 1950s 3-D tends to stay within the boundaries mapped out by Gomery, defining the 1953-54 period as a brief, contentious, and expensive technological cul-de-sac, especially when compared to the concurrent expansion of other processes, from Eastmancolor to VistaVision.² Sandwiched between the U.S. release of wider screen technologies Cinerama and CinemaScope, 3-D films (‘depthies’ or ‘deepies’) such as Bwana Devil (1952), House of Wax (1953) and It Came from Outer Space (1953) tend to be seen as a cautionary tale around cinematic novelty and technological gimmickry. Yet 3-D (by no means a new technology in the 1950s) has proved resilient to such critical setbacks, with international contributions being made to the three-dimensional canon in every decade since, culminating in the current digital 3-D expansion. At a time when 3-D is once again resurgent and controversial, returning to the first commercial period of 3-D production, distribution and exhibition helps us to understand the historical roots of current discourse and uncertainty. While this article is not claiming to directly compare 1951-55 with the present day, the recurrence of debates around studio imposition of (unwanted) technology, increased seat prices, exhibition upgrading, and Polaroid
glasses, shows that the broad sweep of the existing film history narrative of the 1950s needs to be replaced by a more nuanced understanding of the 1950s 3-D experience.

Listing those features that recur in historical and modern discussions of 3-D serves to highlight one of the unknown areas of 3-D film history: the experience of 3-D exhibition rather than the story of film production. In order to expand and complicate the existing academic and popular discourse around 3-D, this article will move away from an American filmmaking focus to investigate British 3-D exhibition practices, and reveal a further untold chapter of 1950s 3-D film history. Although excellent work has been done on exhibitor practices, the study of exhibition has tended to be the study of audiences and ‘the concrete experience of moviegoing’\(^3\), of what cultural and social knowledge can be revealed by placement of cinemas, or local and regional memories of cinemas.\(^4\) This article takes a different approach, as it is more interested in uncovering traces of the ‘concrete experience’ of the people running such cinemas, particularly those British exhibitors who decided to convert to 3-D projection in the time period 1951-55.

This move necessarily engages with recent work on 1950s British cinema that has attempted to reclaim the decade from critical assumptions that see it as ‘a largely unknown country... [critically] neglected... [and] widely perceived as being a dull period.’\(^5\) Although this article would fit within that project, it also challenges the elisions made within the new narrative of the 1950s that is being constructed. While the British film industry was in a period of transition, both financially and culturally, recent work remains focused on feature film production. The discussion of new technology is limited to the effect of new processes on production aspects such as British cinematographers, who experienced ‘acute difficulties... when coming to terms with American technical innovations such as Eastmancolor, CinemaScope and VistaVision.’\(^6\)
3-D is, again, absent from this list of ‘American’ technologies and, indeed, does not feature in any of the book’s discussions of British film in the 1950s. As this article will demonstrate, stereoscopic films were an important part of the decade’s film history, have a strong claim towards being a ‘British’ technology, and need to be understood as part of the British film industry’s attempts to exploit and expand their technological knowledge.

Rather than see the job of the film historian as recreating ‘the consciousness of those who made the films,’ this article sees film history as a broader discipline that can look beyond production and consider those who showed the films: more interested in the question of how cinemas responded, how individual exhibitors (or exhibition chains) regarded 3-D, and whether the British reaction to 3-D tells a different story to the traditional American narrative. Given that British 3-D production, distribution and exhibition began in 1951, almost two years before the release of Bwana Devil and the American transition to stereoscopic production, it is clear that the British story complicates traditional assumptions around 3-D’s place in film history. In order to explore this lost (or unknown) history of 1950s 3-D exhibition and reception, this article will move away from film analysis and instead consider the news, commentary and discourse that surrounded 3-D in the period 1951-55. To focus on exhibition specifically, the article will study the British trade paper Kinematograph Weekly. With a wide circulation in the trade, Kine Weekly (to use its abbreviated title) regularly reported on exhibition trade bodies such as the Cinematograph Exhibitors Association, contained news and reviews aimed at individual ‘showmen,’ and published regular features on how exhibitors promoted and exploited films at their cinemas. It is true that this resource can only offer a partial history of British 3-D exhibition, filtered through the ideological prism of its writers and editors, but it represents a site where news, opinions
and the words of individual exhibition groups came together to create a compelling discourse around 3-D. From British novelty and experimentation to an uncertain embrace of American commercialism, this focus on *Kine Weekly* allows the article to move beyond simple (and U.S. dominated) reports of 3-D’s failure, and think about the specific problems faced by British 3-D exhibition.

1951-52: Creating a British 3-D Network

[T]he British contributions to stereo-vision movies have too long been overlooked.8

Two years later [in 1953] stereoscopy, or 3D, was to become a hysterical gimmick in the commercial cinema, before being abandoned. But at the Festival Exhibition packed audiences saw the system demonstrated in excellent working conditions.’ 9

The 1951 Festival of Britain was an attempt to display Britain as a leader in science, technology and the arts, ‘celebrating the nation’s past achievements... [and] looking ahead to a future of progress and prosperity.’10 A central part of this attempt to present the country as forward looking, both artistically and technologically, was the ‘Telekinema,’ a purpose-built cinema on London’s South Bank Exhibition site. From 3 May to 30 September 1951, this cinema ran a 70-minute programme that included a demonstration of large-screen television projection, occasional live television events, a series of short documentary films about Britain, and four stereoscopic films.11 Although only accounting for around a quarter of this programme, *Kine Weekly* described the
three-dimensional films as the ‘most successful item in the programme.’

The production and exhibition of these experimental 3-D films was therefore central to the Telekinema’s success, but their influence has rarely been discussed in British film history. Easen, Perry and Hayes all refer to the films in passing, but they are largely dismissed as curiosities that never led to mainstream success or commercial impact: as Easen states, mirroring Gomery, while the film industry ‘responded favourably... the prohibitive cost of producing the films and the need to re-equip theatres meant that many saw it having very little commercial impact.’

Yet in its five month run, and despite being the only festival site charging an entrance fee, the Telekinema sold out every one of its 1,220 performances, played to 458,694 people (paying 2 shillings a ticket), and took almost forty-six thousand pounds (gross), suggesting that 3-D films could be a commercial and popular success. This popularity aside, the Telekinema remains important because it extends the period of British 3-D film exhibition back to May 1951 and demonstrates the technological hopes for the future of the British film industry.

*Kine Weekly* devoted several articles to the construction and fitting out of the Telekinema and its architect W. Wells Coates’ designs for this ‘theatre of the future,’ with its silver-grey sloping external shape, steel construction, and glass-sided projection room (which allowed visitors to see the technology in action). In April 1951, two weeks before the Telekinema was due to open, the journal noted that the cinema could be, ‘if not the greatest show on earth, at least one of the most novel.’ While *The Times* described the Telekinema as ‘a pleasant building with a colour scheme of cool greys and blue... [that] has not forgotten the physical comfort of the audience.’ *Kine Weekly* simply noted that the auditorium was ‘normal... in appearance with a balcony whose rake is a little steeper than normal.’ This article spends more time dealing with
specific technical features which exhibitors would find interesting, from the illuminated screen surround (‘a border of light’), and the reflective screen, to the projection booth. This was fitted with twin BTH [British Thomson Houston] SUPA [Single User Projection Assembly] projectors (both with polarising filters), as well as a Selsyn mechanism for synchronising the stereoscopic reels, the television camera and projector, and a mixing desk for the stereophonic sound (Figure 1).

Figure 1: The Telekinema was a site to promote British cinema technology. Advert for British Thompson-Houston projectors and sound equipment. Kinematograph Weekly May 31 1951, p. 37

Despite an initial interest in the ‘novelty’ of stereoscopic projection, Kine Weekly’s editorial tone was cooler, saying ‘there are enough problems in running the kinema of today’ without additional technology. (Figure 2) Four months later, by the close of the Telekinema, this position had shifted, with the journal calling for the commercialisation of three-dimensional films precisely because ‘this industry has been founded on novelty… it can only thrive on the exploitation of novelty.’ One exhibitor sided with
the latter view, saying ‘what I have just seen is progress. It will have to come, and exhibitors should welcome it. We want three-dimensional pictures on our screens, because... [they go] a long way to attracting business.’\textsuperscript{20}

Figure 2: The popularity (and perceived 3-D effect) of the Telekinema films, as seen in this \textit{Kinematograph Weekly} supplement, \textit{The Ideal Kinema}, May 17 1951.

Financial success had, therefore, begun to affect long-standing uncertainties over the place of stereoscopy in British cinemas, but \textit{Kine Weekly} still disputed the expansion of the technology because of the additional conversion costs involved, particularly the need to revamp projection booths and screens, and an uncertainty that audiences would wear the polarised glasses necessary for the stereoscopic effect.\textsuperscript{21} This latter topic would shadow 3-D throughout the 1950s, and recur in later attempts to revive 3-D, including the current digital expansion. Yet there was a more pressing issue around the success of these 3-D films: they were restricted to one temporary London cinema, not part of a regular distribution and exhibition circuit. There was, however, one further screening of the four 3-D films in 1951, and it is from that screening that the future of British 3-D exhibition would grow. In August 1951, the films were shown at Film Guild House in
Edinburgh as part of the fifth Edinburgh Film Festival. Screened twice a night, again to sell-out crowds (and including the world premiere of Royal River (1951), elements of which had been shown as Distant Thames at the Telekinema), these 35mm prints showed that any cinema or theatre could be adapted to show 3-D films, and that they were not restricted to purpose-built buildings. The Edinburgh screenings also established the technical and logistical requirements that theatres would have to deal with: the need for two projectors to screen the reels together, a synchronisation mechanism to ensure a stable 3-D effect, a reflective non-matte screen (preferably metallic), and the ability to pass out and retrieve the polarised glasses. More so than the one-off example of the Telekinema, the Scottish success began the process of creating a regional 3-D exhibition network throughout Britain.

That network was slowly expanded through Stereo Techniques Ltd., the company that had helped produce the four stereoscopic films for the Festival of Britain. Formed and run by Jack Ralph, Raymond and Nigel Spottiswoode, Ken Nyman and Charles W. Smith, the company provided technical support, equipment and distribution to the production companies who shot the British 3-D films. The stereoscopic camera developed for the Telekinema (hailed as ‘far ahead of anything else that has yet been seen’ in America, where producer Sol Lesser promoted it as the ‘Tri-Opticon’ system) used two ‘Newton-Sinclair units [cameras] in opposed positions and 90° mirrors... [with a] Mitchell-type viewfinder’ to capture the twin 35mm images required for the 3-D effect. Articles by Spottiswoode and Smith demonstrate they were particularly interested in the technical and psychological aspects of stereoscopic moving pictures, rather than any artistic merits (this was seen as the realm of the director). Their desire to develop and improve available camera technology, however, culminated in the Stereo Techniques Spacemaster camera. Smaller and more flexible, the Spacemaster used twin
Cameflex cameras, with mirrors mounted to both lenses (the camera included 32mm, 40mm and 50mm focal lengths). This camera was used most famously to shoot stereoscopic images of Queen Elizabeth II’s coronation in 1953 and Britain’s only 3-D feature film, *The Diamond Wizard / The Diamond* (1954).

However, in 1951, Stereo Techniques used the commercial and popular success of the Edinburgh screenings as a springboard to sell the films (and the attendant technology) to independent theatres and the smaller exhibition chains. Less than a year later, *Kine Weekly* estimated that the cost of such conversions was between £300 and £500 per theatre: ‘not so great when compared with the initial costs of sound.’ A small number of theatres began to invest in the technology: the four 3-D shorts were played as the main attraction in the Tatler (Liverpool) and the Curzon (Brighton), while the Ritz (Blackpool) played them in mornings and early afternoons, before reverting to a feature-based programme in the evenings. Stereo Techniques signed a deal with the Capital & Provincial News Theatres, a small chain that played the films at various theatres including the Classic (Southampton); the exhibition chain Essoldo experimented with 3-D at their Whitley Bay cinema; while the second largest chain, ABC, screened the films at larger venues such as the Victoria Theatre (Cambridge), and the Bristol and Forum theatres (Birmingham).

Creating this piecemeal distribution and exhibition strategy through 1952 began to introduce 3-D to regional audiences. *Kine Weekly* still saw the initial films as a novelty, able to fill 20-25 minutes of a programme, but nothing with the kind of ‘sound entertainment value’ as a 3-D feature film ‘with which audience reaction to the idea can be more fairly assessed.’ Yet the novelty was proving compelling: in summer 1952, a second round of 3-D short films (co-produced by Stereo Techniques in association with the Pathé Documentary Unit, Shell Film Unit, Anglo-Scottish Productions and the
National Coal Board) debuted at the Riverside Theatre (Battersea), before being released to the theatres identified above, and new additions in Boscombe, Bristol, Edinburgh and Glasgow.\(^{31}\) (Figure 3) Cinemas were making money from this novelty, and there appeared to be a steady supply of product from Stereo Techniques (a third set of shorts, including a 3-D cartoon of *The Owl and the Pussycat* from the Halas & Batchelor animation studio, would follow in 1953). (Figure 4)

![Figure 3: Advert for the 2nd programme of Stereo Technique short 3-D films at the Cameo Cinema, Edinburgh. *Evening Dispatch*, September 2 1952, 11.](image1)

![Figure 4: 1953 advert for Stereo Techniques Ltd. promoting both cinema conversion and the latest 3-D shorts, including the Coronation film, *Royal Review* (1953), *Kinematograph Weekly* October 1 1953, 30](image2)

This growth meant that, by August 1952, these two programmes of short British 3-D films had been shown at almost twenty cinemas, in twelve towns and cities through the
UK, and had achieved success abroad, in Holland, Belgium, Germany, France and Switzerland. By the end of 1952, *Kine Weekly* reported that the nascent production, distribution and exhibition strategy developed by Stereo Techniques had moved beyond the ‘novelty value’ of the Telekinema. The success of these films at other cinemas included 47 full houses in Liverpool (in two weeks), regular queues in Blackpool, extended runs at Whitley Bay and Edinburgh, and nearly 10,000 people in a week at the Savoy (Boscombe). Popular, well-attended, and financially successful for both Stereo Techniques and the individual British exhibitors: *Kine Weekly* may have stated that the trade has ‘in the past refused to accept a system that depends on viewing devices’ and noted that ‘much must be done before the industry will be prepared to make a complete changeover,’ but the strong public reaction and the financial success appeared to be swaying opinion towards the Stereo Techniques approach to 3-D.

And then *Bwana Devil* arrived.

1953-55: American Domination

At the end of 1952, around 30 cinemas in Britain had converted to (or experimented with) some form of 3-D projection and exhibition. By the end of 1953, that number had risen to over 120 cinemas. Although still only around four per cent of British cinemas in this time period, that number included several metropolitan cinemas and a growing presence in all the big cinema chains, including Gaumont, Odeon, ABC, Essoldo, Star and Capitol & Provincial. However, that rapid expansion was only achieved after the release of *Bwana Devil* on 20 March 1953 (with simultaneous premieres in Glasgow, Leeds, London, and Birmingham), not because of the continued success of the programme of British shorts that had initially created an interest in, and an exhibition circuit for, stereoscopic films. Indeed, *Kine Weekly* made no reference to the continuing
production and exhibition of original British short films after the summer 1953 reviews of the third set of Stereo Techniques releases. Yet the importance of these British films to the initial success of the American features is underlined by the ABC circuit’s admission that using the Stereo Techniques shorts was a way to ‘provide projectionists with experience of polarised light systems’ before House of Wax premiered in their cinemas.

Although cinemas across Britain were converting through 1953, the move to projecting American feature length films complicated the technical and logistic elements that the British shorts programmes had largely avoided: namely, projection and synchronisation, new screens, rental prices, entertainment tax and Polaroid glasses. These elements would haunt 3-D exhibition during the 1953-55 period, and later revisions of it, and represent the dominant discourse around 3-D in the pages of Kine Weekly in these latter years.

Projection of 3-D features ran up against technical issues around the average spool size for film projectors of 2,000 ft. (approximately 20 minutes) and the problem of running a continuous programme. Most British cinemas were furnished with two projectors that would interchange reel by reel, allowing the programme to continue without interruption. With 3-D, both projectors were needed in operation at the same time to produce the stereoscopic effect: while this had not been an issue for the British shorts, most of which lasted four to five minutes (and which did not have a continuing narrative, so could support an intermission), 3-D features of sixty to ninety minutes created more problems, as exhibitors did not want to interrupt their stereoscopic films two or three times during the programme in order to swap reels on both projectors. Some of the earliest American films such as MGM’s Metroscopix (1953, a red-green anaglyph system that featured a compilation of footage from 1930s stereoscopic films:
see Figure 5) and the Exclusive-distributed *A Day in the Country* (1953, also red-green anaglyph\(^{36}\)) ran around twenty minutes to avoid this problem.

![Image](image.png)

Figure 5: The release of the red-green anaglyph 3-D system for MGM’s *Metroscopix* (1953) allowed exhibitor showmanship skills to come to the fore. *Kinematograph Weekly* April 2 1953, 3.

With the advent of *Bwana Devil* and *House of Wax*, however, many theatres had to either introduce intermissions or install two entirely new projectors. Reporting on a Croydon screening of *Man in the Dark* (1953), *Kine Weekly* noted that the Davis Theatre had opted for the latter solution, offering a 3-D presentation that ‘was continuous and made with the usual precision of a “flat” programme.’\(^{37}\) Larger theatres such as the Odeon Marble Arch followed this pattern (a 4 projector system was introduced for *Inferno* in late 1953), while the Warner Theatre experimented with 5,000 ft. reels for *House of Wax* (the most successful of the 3-D features released in the UK).
The bulk of theatres showing 3-D features in 1953, however, had to follow the example of the *Bwana Devil* release, where two intervals were required to project the whole programme.\(^{38}\)

3-D exhibition raised other notable issues, some of which are familiar from the existing narrative around 3-D history, others that are unique to the British experience. Alongside concerns about the installation of new reflective screens, a lack of industry standardisation, worries about rising rental costs (3-D required double the amount of celluloid, at least initially) and the growing sense that 3-D (and other processes) could mean the end of the traditional cinema programme, the dominant issue that outweighed all the others remained the polarising 3-D spectacles. These special glasses, or polaroid viewers, were the central pivot around claims for the success and/or failure of 3-D in the 1950s, as they have been in the decades since. Yet as with many ‘commonsense’ arguments, there is little precise evidence that audiences were unwilling to wear these glasses, or had complained about their use. While *Kine Weekly* was initially cautious about people’s willingness to wear “‘sun-glasses” in order to see the three-dimensional effect,\(^{39}\) and stated that ‘there is no prospect of turning three dimension to advantage until some system is evolved that does away with the use of spectacles’\(^{40}\) by early 1953, it reported that the ABC managing director had said ‘the public does not object to the use of glasses.’\(^{41}\) Even with this exhibitor comment, the journal remained sceptical, stating that the ultimate objective of 3-D exhibition must be to remove the need for viewing devices: particularly when those devices began to have an impact on exhibitor finances. In 1953, with the increase in American 3-D features being released, and more cinemas having to buy in stocks of 3-D viewers, it became clear that these polarised glasses came with (hidden) costs for the exhibitor around the issues of availability, hygiene, theft, and tax.
The move from twenty to over a hundred 3-D-capable theatres through 1953, all of which needed Polaroid glasses at the same time, meant an initial shortage of 3-D glasses in Britain: a shortage exacerbated by British government restrictions on the importation of manufacturing products. By March 1953, following the import of 32,000 pairs of 3-D spectacle for the release of *Bwana Devil*, and seeing a potential growth market, British companies began to produce their own polarising filters for projectors and spectacles, and by late 1953, companies such as Dan Fish, Amector and GB-Kalee (in association with American company Pola-Lite) were regularly producing polarising spectacles. Having the glasses highlighted problems around how best to distribute and collect glasses in each cinema. Theatres were unsure of how many pairs to buy, and how to ensure that the process was hygienic for all patrons. The Odeon Marble Arch, for example, was big enough to justify buying three complete sets of glasses and a separate room where Polaroid employees would sterilise all the glasses, rinse then, and hand them back dry for the next sitting. But small or medium-sized exhibitors, who made up the bulk of 3-D theatres, had a small staff, and lower financial resources. *Kine Weekly* suggested that even the smallest hall would need ‘a double amount for each seat and screening, plus the quantity in process of disinfection’ One Birmingham cinema created a collection booth, where audiences could pick up and drop off their glasses (Figure 6), but most cinemas relied on usherettes and audience cooperation: yet within weeks of regional 3-D screenings, *Kine Weekly* reported on the rise of glasses ‘thefts’ and the effect this had on exhibitor profit.
Figure 6: A 3-D glasses collection booth, one method used by UK cinema exhibitors to try and cope with the extra staffing required to manage the polaroid glasses. Kinematograph Weekly April 30 1953.

Exhibitor uncertainty coalesced around the question of whether to sell or rent 3-D glasses to patrons, and how that choice impacted entertainment tax. British cinemas (and other venues such as theatres, horseracing tracks and football grounds) had to pay entertainments duty to the Customs & Excise, seen by many in the industry as a government tax on popular entertainment. The tax was applied to any ticketed element of the entertainment venue: therefore, different priced cinema tickets were taxed at different levels. The introduction of American 3-D features (though not the British shorts that had preceded them) caused many cinemas to raise their ticket prices, in order to cover the costs of 3-D glasses rental. As many rental agreements included the disinfection of glasses (either offsite or, as in the case of the Odeon Marble Arch, onsite), and included less initial outlay, exhibitors were more keen to rent glasses and intended to pass that cost on to customers. However, because 3-D glasses were an integral part of the entertainment (the customer could not see 3-D films without them) that rental cost was liable for entertainment tax. Some chains attempted to avoid this
tax by purchasing large numbers of 3-D glasses and selling them to patrons, on the assumption that each individual would bring their pair of glasses with them to each subsequent film screening. That, however, meant a much larger initial financial outlay, and the exhibitor would then be liable to pay purchase tax. *Kine Weekly* reported on this debate regularly during 1953-54 but, although the trade organisation CEA met with Customs several times, this issue of tax payments was never satisfactorily resolved. With this uncertainty over glasses and tax, the costs of conversion, and the small number of 3-D features on release (nine in 1953, six in 1954), many British exhibitors postponed the decision on 3-D until a point where it became clear that CinemaScope was proving the more dominant screen technology.

**Conclusion: 1954 and beyond**

The pattern of entertainment to come is slowly taking shape... the trade as a body is showing more interest in the panoramic sweep of wide film than it is in the entertainment value of a third dimension.47

[T]here are unmistakable signs that the public likes the 3-D film. There is little evidence that it resents having to put on special glasses... “Kiss Me Kate,” where shown in the 3-D version, did substantially higher business than the anyway excellent business it did where shown as a normal flat film... 3-D is far from dead as a gimmick.48

As these two comments demonstrate, *Kinematograph Weekly’s* position on 3-D wavered quite dramatically in this short time period. Never completely convinced by its
novelty value, lured in by the initial financial success of both the British shorts and the American features, its concerns over conversion, Polaroid glasses, and the competition of CinemaScope ensured a continually sceptical tone. Yet during 1954, as stereoscopic films were overshadowed by CinemaScope, it dismissed the distribution strategy of releasing films in both 2-D and 3-D prints. While this meant that such films were able to achieve a full circuit release, *Kine Weekly* argued that this reduced the impact of the 3-D technology. The numbers, however, showed the perilous state of British 3-D exhibition: *Kiss Me Kate* (1954) was shown in 3-D in ‘over 100 kinemas’ while ‘many hundreds have arranged to show it in conventional form.’ British exhibitors had largely voted through their lack of commitment and conversion, despite the initial record-breaking returns on films such as *House of Wax* and *It Came from Outer Space*.

By the end of 1954, 3-D is largely absent from *Kine Weekly*. It is possible to see the traces of ‘lost’ 3-D projects in the trade show listings of *Creature from the Black Lagoon* (1954), posters for *The French Line* (1954) and *Miss Sadie Thompson* (1953), or reviews of *Dial M for Murder* (1954) and *Gog* (1954), but there is no commentary on the fact that these were 3-D productions (or that most had been released as 3-D in America). Stereo Techniques is never mentioned again, and there is no commentary or review of later British 3-D shorts such as *London Tribute* (1954) or *Power in Perspective* (1955). As with many aspects of British distribution and exhibition, American success or failure was the ultimate arbiter of how films (and technologies) were promoted and offered to British cinemas. Although at the end of 1954 almost two hundred theatres contained the necessary equipment to project 3-D (either in its two-projector format, or the later single-strip option), very few of the flagship cinemas had made the move. With many of those now converting to CinemaScope, the evidence (or lack thereof) from *Kine Weekly* news and reviews suggests that 3-D had been dismissed
from the British exhibition circuit. Yet there remains a potent gap in the available information, one that the regular section ‘Showmanship’ can only partially fill. Featuring several pages of suggestions, best practice and exhibitor ideas on how to promote individual films or cinema programmes, ‘Showmanship’ continued to feature reports from cinemas showing 3-D films during 1954 and into early 1955. It offers a stark reminder of *Kine Weekly*’s metropolitan bias and the recent call for film historians to look beyond such centres in order to truly explore the story of exhibition. In so doing, it also reemphasises that future research in this area will necessarily have to move beyond the pages of just one trade journal, no matter how representative or comprehensive it may appear.

3-D equipped cinemas in Britain between 1951 and 1955 never rose to more than five per cent of the exhibition sector, and rarely accounted for more than one per cent of all cinema admissions. Despite bringing in, on average, more money per customer (1s. 4 ½ d. versus 1s. 0 ¾ d.: largely due to raised seat prices or glasses rental), 3-D simply never convinced enough exhibitors to convert their theatres. While the cost of the technology, and the uncertainty over audience willingness to wear Polaroid glasses, remains part of that equation, two other elements are telling. There was a lack of 3-D product to fuel further conversion: only nine 3-D films released in 1953, six in 1954, compared to the release of between fifteen and twenty CinemaScope films in 1954 alone. Most telling is that the bulk of theatres converting to 3-D exhibition between 1951 and 1954 were small cinemas (seating 501-750 people), rather than the large (1000-1500) or very large (1500-2000+) cinemas that dominated metropolitan areas. With this smaller size of British cinema already in decline, bringing in less money and reduced audiences, the 3-D circuit’s natural home was failing before 3-D arrived, and the technology could not save them.
While some of these elements are familiar from the established narrative of 3-D in film history, many are unique issues from the British exhibition sector that cast new light on the problems and opportunities of 3-D as a cinema technology. Understanding that the discourse around Polaroid glasses, the cost of cinema conversion, the rise in seat prices, and the imposition of ‘American’ technology has these solid historical roots is essential in appreciating the place of 3-D in current British exhibition debates. Yet the real revelation here is that the details of the British story are not the same as the broader American narrative that dominates film history. The nuances revealed here around the earlier British experiments with stereoscopic production and exhibition, how Britain created a 3-D exhibition circuit at least a year ahead of the U.S., and the role of Stereo Techniques in promoting and displaying this new technology, usefully complicate current awareness of both 3-D and the technological capabilities of the 1950s British film industry. The post-American feature period is also replete with British curiosities: the place of entertainment tax, hall size, circuit releases, and trade organisation anxiety around standardisation is as essential as the more familiar discourse around Polaroid glasses and problems with synchronisation. This move away from British (and American) 3-D film production into the world of exhibition has opened up the time period and offered new routes into thinking about this untold chapter of technology in British film history.

10 Sarah Easen, ‘Film and the Festival of Britain,’ in Neil Sinyard and John McInyard (eds.), *British cinema of the 1950s: a celebration* (Manchester: MUP, 2003), 51.
11 The first programme of films included the animated shorts *Now is the Time* (to Put on Your Glasses) (1951) and *Around is Around* (1951), and live action documentaries *A Solid Explanation* (1951) and *Distant Thames* (1951).
13 Easen, ‘Film and the Festival of Britain,’ 55-56.
14 ‘New Looks For Gold,’ *Kinematograph Weekly* 414, 2306 (6 September 1951): 4. £45,689 of 1950 money has the same ‘spending worth’ as just over a million pounds in 2011: conversion figures courtesy of http://www.nationalarchives.gov.uk/currency/default0.asp#mid
17 Benson, ‘Close-Up on the Telekinema’: 5.
21 ‘The Kine Takes an Exhibitor as Guest’: 6-7.
23 The first public demonstration of 16mm stereoscopic projection was also made at the Festival, although it was the 35mm shows at the Film Guild Theatre that dominated the reports in *Kine Weekly* and elsewhere.
25 Raymond Spottiswoode, N.L. Spottiswoode and Charles Smith, ‘Basic Principle of the Three-Dimensional Film,’ *Journal of the SMPTE (Society of Motion Picture and Television Engineers)* 59, 4 (October 1952): 267. Technicolor also produced a similar unit for the production of 3-strip 3-D for *Royal River*.
27 Although shot stereoscopically, *The Diamond Wizard* missed the boom of 3-D exhibition in Britain, and was never released in 3-D. Its 3-D elements were reconstituted for the second 3-D Screen Expo in Los Angeles in 2006.
31 The second 3-D programme included documentaries *On the Ball / Eye on the Ball* (1952), *Northern Towers* (1952), *Sunshine Miners* (1952), and *Around is About* (1952), animation *Twirligig* (1952), and ballet film *The Black Swan* (1952).
34 *Royal Review and Vintage ’28* were documentaries, *Summer Island* was a travelogue; while *The Owl and the Pussycat* was an animated adaptation of the Edward Lear nonsense poem. ‘Reviews for
36 Red-green anaglyph (where the right and left images are dyed red and green, and then filtered through similarly coloured lenses) offered a more basic form of stereoscopic projection. It was less successful than the polaroid version but cheaper to produce and screen, hence the presence of Metroscopix, A Day in the Country and College Capers (1953) on British screens close on the heels of Bwana Devil. Despite the bulk of 1950s 3-D films being produced in some polaroid format, it is red-green 3-D glasses that remain the dominant cultural image of that time (red-green anaglyph was also used for comic books and other, printed, material).
42 ‘3-D Without Intervals,’ Kinematograph Weekly 433 2388 (2 April 1951): 44.
43 The Manager, ‘Spectacles Bring These Problems To Light,’ Kinematograph Weekly 432, 2387 (26 March 1953): 35.
46 ‘Essoldo Buys Specs,’ Kinematograph Weekly 438, 2412 (17 September 1953): 41. The British Odeon and Picturehouse chains have recently re-introduced a version of this policy.
49 Kinem Weekly commentary demonstrates that Arena (1953), Hondo (1953), Kiss Me Kate (1953), Phantom of the Rue Morgue (1954), Gorilla at Large (1954) and The Mad Magician (1954) were released to British cinemas in both 2-D and 3-D prints. This trend was started in late 1953 by Inferno. As 20th Century Fox’s only 3-D film, this move strategically undermined 3-D at the same time as Fox promoted its own CinemaScope process.
52 An analysis of the wider critical response to 3-D films within British newspapers and film journals can be found in Johnston, ‘“A technicians’ dream”? The Critical Reception of 3-D Films in Britain, 1951-2010’ (forthcoming)