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The Moving Picture Company: Innovators and Early Adopters of British Video Post-Production

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The UK's postproduction industry is, according to the professional trade association Screen Alliance (2019), lacking in research and suffers from being regarded as separate to VFX rather than the larger industry within which the VFX sector is rooted. This article examines the history of the British VFX industry through a case study analysis of the Moving Picture Company (MPC), founded in 1970, adding a video postproduction division in 1974. The analysis is conducted through an in-depth semi-structured analysis of MPC's founder, Mike Luckwell. In 1983, Luckwell executed a reverse takeover of Carlton, retaining overall control of MPC and acting as the managing director of Carlton until 1986. The article demonstrates that MPC operated across the supply chains for advertising, film and television, initially drawing R&D funding from the advertising industry, and latterly features. The author suggests that historians have a role to play within contemporary policy-facing research by contributing detailed analysis of supply chains and hidden labour through qualitative interviews and archival analysis. Further research into the R&D role of screen advertising is recommended.



In 2013, *Televsual* ran a piece on Britain's VFX sector, citing the Moving Picture Company as a leading example of the UK's success.¹ Launched in 1970, by 1986 the company was a global leader in VFX, second only to George Lucas's 1975-founded company Industrial Light and Magic. The Moving Picture Company (hereafter MPC) held this position well into the twenty-first century, winning Academy Awards for Best Visual Effects for *Life of Pi* (2013), *Jungle Book* (2017) and *1917* (2020). It opened offices in Vancouver in 2007, Los Angeles in 2008, Bangalore in 2010, NYC in 2011 and Montreal in 2013. In that *Televsual* piece, the managing director of Double Negative, Alex Hope, identified three factors contributing to the success of British VFX companies such as MPC: first, Warners' decision to make the Harry Potter franchise in the UK, which underpinned the industry and showcased the abilities of British artists to Hollywood; second, the UK's 'simple, well understood tax credit', and third, the fact that VFX companies could build on the legacy of 'a talented pool of commercial VFX artists' (Dams 2013).

This article presents some oral history evidence about that 'talented pool of commercial VFX artists' through an in-depth interview with the founder and managing director (1970–1983) of the Moving Picture Company: Mike Luckwell. VFX forms part of the larger postproduction sector on which there is a marked absence of publicly available data, despite being one of the most economically successful of the UK's screen industries. Screen Alliance, the sector's UK trade association, has advanced concerns that attention has been disproportionately focused on the subsector of VFX as if it were a separate industry (Screen Alliance 2019). As well as VFX, 'postproduction' includes editing, grading, picture and audio finishing and the production of all deliverables and international versioning. Thus far, Screen Alliance has identified misreporting and a lack of subdivisions in SIC code submissions (Standard Industry Classification codes) as one of the major causes of the 'invisibility' of the postproduction sector (Caston 2019, Screen Alliance 2019).

This paper contends that in-depth qualitative interviews with expert witnesses such as Luckwell and analyses of historical archives can not only illuminate the contemporary invisibility of sectors such as postproduction but provide crucial historical evidence about the dynamics between sectors of the screen industries that have impacted productivity and innovation. Identification and analysis of these dynamics can facilitate the discovery of previously overlooked drivers of growth and technological innovation central to current UKRI (UK Research and Innovation) investments in R&D for the screen industries. The evidence examined in this article suggests not only that

¹ Dams 2013. Launched in 1982, *Televsual* is one of the leading trade publications for the UK's screen production industry.

MPC's VFX work was a subsector of its pioneering role in the emergence of the UK's independent postproduction cluster, it also demonstrates that MPC was strategically grown through the complex interplay of supply chains (or as Peter Bloore terms them 'value-systems' 2009) for film, television, advertising and music video, across what I have termed an 'ecology' (Caston 2019) and Pratt a 'creative eco-system' (2023) of the screen industries. After a brief overview of existing research and of the methodology of this study, findings from Luckwell's interview are presented followed by a discussion about the role of historical research in policy-making.

Sustained research studies of this history are few. Amongst the most significant is Pratt and Gornostaeva's work (2009) on the Soho screen cluster. They identified Framestore, launched in 1986, sixteen years *after* MPC, as an example of a leading global VFX company of British origins that developed to serve the needs of advertising and only later moved into film and TV (2009). Their observation followed the UK Film Council's 2003 report showing that British postproduction was funded approximately one-third each by the feature film, television and advertising industries. A programme of systematic scholarship into the history of parts of the UK's postproduction screen industries using interviews and archival sources is well underway in Britain thanks, partly, to research council grants which have enabled this very labour-intensive and, consequently, costly methodology: examples include the ADAPT project (Hall and Ellis 2020) and the BECTU history project (Dawson and Holmes 2012). Few, however, connect the supply chains. Larkin's book on the 'invisible revolution' of digital postproduction, whilst a useful introduction, also fails to examine the dynamics of technology adoption between different supply chains (2018). Whilst the research of Sarah Street and colleagues on the adoption of colour film in Britain (2019, Street et al. 2021) is much more engaged with issues of technological adoption, not only presenting crucial evidence about postproduction techniques but a framework for analysing the complex 'negotiation of innovation' in media industry history, it does not address the intersection of these supply chains.

The interview with Luckwell was conducted as part of an eight-year-long programme of research mapping the ecology of intersected screen industries in Soho since the 1890s.² Initially intended only as background material for a forthcoming monograph, Luckwell's narration of technology and innovation engaged so noticeably with current issues of regulation, governance, productivity and competition in publicly funded initiatives to support British technological development, it was decided to

² Fifty Years of British Music Video AH/M003515/1, Hidden Screen Industries Network AH/V015656/1, An Archaeology of Screen Advertising Production in Britain SRG2021\211360.

present it in this dedicated article.³ The seeds of the UK's postproduction and VFX sector were sown during a postwar government consensus on technology and economic growth: in 1963, Wilson had promised to modernise British technology and industry to drive the 'white heat of the technological revolution.' Media companies' technological adoptions of the 1960s to the 1980s occurred within the framework of policies designed to stimulate investment and innovation under the administrations of Labour's Harold Wilson (1964–1970), the Conservatives' Edward Heath (1970–1974), Labour's James Callaghan (1974–9), and the Conservatives' Margaret Thatcher Governments (1979–1990) which focused on fundamental restricting of media regulation and control not least through the dismantling of ACTT's closed shop.⁴

Luckwell's testimony contained material relevant to contemporary questions about how and why technological innovation occurs in media. Rogers' model (1962) of segmenting a population into innovators, early adopters, early majority, late majority and laggards depending on their willingness to take risks and adopt new innovations is frequently used to analyse the success or failures of new technologies. Previous research drawing on that model has suggested that many of the early pioneers of video postproduction were 'shot in the back' (Caston 2019, Paterson 2020) in reference to the saying 'pioneers take the arrows, settlers take the land.' Luckwell's evidence, however, suggests that far from being shot in the back, MPC was both a pioneer and settler that went on to become one of the most financially and artistically successful media companies of British origins in the last fifty years. It did so by actively creating not only a market of early adopters (the screen advertising industry) but also a communication strategy to engage the larger markets of the early majority (Hollywood film producers), late majority (British film producers) and laggards (British television). In analysing how MPC did this under Luckwell's leadership, this case study is advanced as a contribution to scholarship on technology and innovation in the media industries and a corrective to a tendency in media histories to present technology as an autonomous cause of change (Curran 2002) (see also Briggs and Burke 2009). As Blondheim observes, '[a]t its worst, media history echoes the claptrap of the guru-type deterministic discourse, albeit looking at technology backwards rather than forwards' (2012: 214).

The interview took place in the study of Luckwell's private residence in central London where he kept his archives: folders of carefully catalogued and conserved trade

³ For example the 2023 awarded Convergent screen technologies and performance in realtime (CoSTAR) programme: <https://www.ukri.org/councils/ahrc/remit-programmes-and-priorities/convergent-screen-technologies-and-performance-in-realtime-costar/>.

⁴ British trades union The Association of Cinematograph, Television and Allied Technicians (ACTT) existed between 1933 and 1991.

press cuttings related to the work of MPC and Carlton in the 1970s and 1980s along with a privately-printed autobiography. Now aged seventy-four, Luckwell had undertaken what Thomson (2011: 82) terms a 'life review.' His role was that of a 'narrator' rather than 'interviewee' (Ritchie 2014: 82, Shopes 2015), and functioned more as a business oral history (see Perks 2015) than a personal oral history. His narration was structured by a set of ten pre-prepared open-ended questions set by me related to innovation, supply chains and the Soho screen cluster. As such it constituted a cross between a semi-structured interview and a business oral history. The problem of verification in oral sources identified by Portelli back in 1979 (reprinted 2015: 52) was in part mitigated by Luckwell's press cuttings; but in order to create readable flow, not all those references have been included in this article (although they are contained in the original transcription). Facts have been cross-verified by other primary sources and secondary sources are cited for background, context, and corroboration. The four steps suggested by Shopes (2015) to prepare oral histories for publication were followed: interview sections most relevant to the research questions were selected and edited to present a well-composed written text. Luckwell's consent was obtained both prior to the interview and on receipt of my transcription of the interview (when he was given the opportunity to redact anything) and the research was conducted in accordance with the University of West London's Research Ethics Code and Committee approval.

Brief History of Postproduction Before 1970.

By the time Luckwell launched MPC, Soho was already becoming a postproduction cluster; but it was not always so. 'Postproduction' centred around the film editor and, according to Rachael Low, 'the word 'editor' emerged in the late nineteen-teens from an uneasy shuffling of the functions of editing the script, writing the titles, sticking the film together, and doctoring an unsatisfactory film with scissors and cement' (Perkins and Stollery 1997: 268). Newly constructed studios built after the 1920s, such as the Stoll Studios in Cricklewood, tended to incorporate dedicated cutting rooms for the emergent editors (Perkins and Stollery 2019: 269), almost all in the outer suburbs of cities like London.

After the launch of ITV in 1955 editors began opening independent cutting rooms in London's Soho. The new advertising producers sought to 'dry hire' independent film editors without attachments to studios or labs (Garrett 1986). In 1976, Pamela Power, who, at Natural Breaks (1968–76), had become Ridley Scott's regular editor in television commercials, set up one of the earliest independently owned Soho cutting rooms: the Film Editors. Shot on 35 mm, these commercials would be cut on Moviolas. Editors like Power would send their 35 mm edit back to the laboratory as a guide to

cut the negative and, if necessary, add dissolves and titles; up to eighty-two prints of this negative would be made and despatched around the UK. Luckwell says the ITV broadcasters initially transmitted them by 'joining the film commercials together onto one spool of film per commercial break.'

The growth of independent cutting rooms coincided with the continuation of Soho as a preview cluster. Throughout the 1930s, fiction theatrical, documentary, and industrial film producers had used Soho facilities as a centre to view rushes, rough cuts, new films and imported films (Russell and Taylor 2019). The advertising producers appropriated the feature film industry's Wardour Street screening theatres as well as some new startups. Producer Lewis More O'Ferrell holds a list in his production notebooks from the 1970s of over twenty theatres regularly hired in fifteen or thirty-minute blocks such as The Mercury, The Bijoux, and The Crown: 'we'd screen the rushes before we started the edit. If you wanted to see a double head - a fine cut with sound before you went to answer print - you'd use a dual head projector to run the 35 mm magnetic soundtrack and picture 35 mm together' (More O'Ferrell). Power believed the shorter, compressed duration of the sixty-second commercials made the viewing and dubbing processes more central than they had been in feature films; it made economic sense to locate these facilities within walking distance of each other (*Soho Then*, 2019).

Film to Video Postproduction

MPC was launched in 1970 as one of Soho's new independent production companies. 'We worked as a production company predominantly; there was always a production division of the Moving Picture Company.' The founding partners Dennis Abey, Derek Banham and Luckwell had previously run the commercials production company HSFA with Abey and Robin Hardy. After two years, MPC moved from Ingestre Place to a building in Noel Street large enough to accommodate a studio.

Luckwell says that 'the key to our success' was the acquisition of a telecine machine. During the 1960s, the technology to broadcast from pre-recorded videotapes had been commercialised by Television Recordings Ltd (known both as TVR and TVI) in Soho in response to demand from the BBC and ITV stations (Crittenden 2003). TVI would record film broadcasts and then 'transfer the films to videotape with a telecine machine before transmission. Later still they used giant computerised 'cartridge' players with one commercial per cartridge,' said Luckwell. 'TVI was the biggest of the video houses before we came into the market. But they only did conventional broadcast work for UK and US broadcasters. It was an old-fashioned style of editing where you had to join the cuts with cellotape.' MPC's acquisition of the telecine machine gave it the potential to

start selling to independent producers. Aside from TVI, British telecine machines were housed or controlled by television broadcasters. Keith Ewart's company, the first to shoot on video and a competitive early adopter, was limited by not owning one.

It was the potential for editing on video that sealed Luckwell's decision to start a video division of MPC. According to More O'Ferrell Luckwell had undertaken market research whilst both men were still working at HSFA:

When I was working for him in the States in the late '60s, he sent me to New York to research optical houses in New York to see how they were made, what the style of business was, what sort of margins there were, what kind of profits could be made, how big an industry it was. I came back and fed this all back to him. I didn't know then that this was part of his grand plan to switch from film to tape and get rid of this whole print cycles of sending things off on film which could go be halted by a strike.

Luckwell says that the first research paper on videotape he commissioned at MPC concluded that the technology was still 'too clunky' to be a viable business. According to More O'Ferrell, the 1969 strike of film laboratory employees and union technicians, however, indicated that change might soon be welcomed: the strike exposed the advertising agencies to risk and inflicted damage on their confidence in the *ancien regime* of union-controlled film-based postproduction. More O'Ferrell identified the opening of the BT Tower transmission facility in 'about 1972' as a second crucial factor in Luckwell's decision. This, 'opened up the ability to transmit video material across the airwaves' because it generated a 'window when you could transmit to the UK/USA live; the Americans were on NTSC, the French were on SECAM, and we were on PAL; all the interfaces had to be created so that we could transmit to all those places.' More O'Ferrell reports that 'MPC started doing tests to develop the switchover' and that in 1973, Luckwell hired him as the Head of Production.

It was in 1974, 'after a second research paper on videotape, that we decided that now was the moment,' said Luckwell. It had become possible to use a computer to control three different video recorders during editing and Government policy favoured capital investment. MPC had accumulated 'very healthy profits' since its 1970 launch and 'the government allowed a company to offset profits against capital expenditure on things like video equipment. They wanted people to invest in new technology.' Over a period of three years, Luckwell invested the company's profits in video equipment purchases.

For the first few months, the video division operated as Drum TV to avoid opposition to the new technology. 'It was an uphill struggle. One of my partners didn't want to be associated with video.' Citing a press article 'about the dying throes

of the cheap and horrible video image,' Luckwell reflects that 'only when it was a success did we say it was part of the Moving Picture Company.' The new technology was shunned by other production companies. 'Our company was always looked down on, it wasn't highbrow creative outfit like Ridley Scott's.' Then music-video director Danny Kleinman corroborates his view, saying that 'those videos looked very video, not filmic in picture quality; material shot on video in those days looked really crap, rather flat and electronic, synonymous with cheap TV' (Kleinman). Luckwell reports that Collet Dickenson Pearce (CDP), home to Alan Parker and widely regarded as the most 'creative' agency of the 1970s, would not work with his new company, viewing it as an uncreative, downmarket sponsor of poor-quality video technologies. Partly to spite them, Luckwell acquired shares and MPC became a major shareholder in CDP; Lowe, Luckwell reports, was furious when he discovered MPC part-owned his agency.

Luckwell faced opposition from the trade union because not all of the first-generation videotape workers were unionised. 'The union said that anyone working with video had to be a union member.' In 1975, Luckwell took the ACTT to court.

The ACTT had tried to get the stations to refuse to accept commercials which had been post-produced on videotape outside a TV station. Over 50% of all commercials transmitted in the UK were post produced by Moving Pictures at one stage. We were the market leader, and we were supplying half of the UK's commercials. The stations had to transmit them because the commercials were their only source of revenue. MPC sued the ACTT and took them to court and won. It was the worst experience in my career.

Luckwell's account of the ACTT court case is also reported and verified by Potter (2008: 82), and Darlow (2004: 246) who goes into further detail about the ACTT's response. Luckwell won the court case and after receiving the verdict, says Luckwell, 'the ACTT allowed the independent video sector to flourish.'

Luckwell's research on the US market, business judgement, and indefatigable confidence in selling MPC's new video facilities proved well judged. By 1976, virtually all commercials were edited on video whilst still shot on 35 mm film. Luckwell expanded MPC, bought an adjoining freehold building in Wardour Street and acquired a couple of other intercommunicating buildings on the same block.

For More O'Ferrell, Luckwell's strategic *coup d'etat* was to work with advertising agencies:

Mike realised that his postproduction clients should be advertising agencies, not film companies. It was advertising agencies which had the money: they were solvent, and they were more reliable. Film production companies weren't necessarily as reliable; some were going bust overnight.

Luckwell says he realised that 'the big potential was in taking work away from the film laboratories and doing everything, except processing the film rushes shot on location or in the studios, using videotape postproduction; this was hugely successful approach for MPC.' He sought to 'pull a stroke on the advertising sector.'

There was a big problem with the period between the decision making, and the delivery, of commercials – it was about 6–8 weeks. The agency produced a script, then it was shot and edited on film and then film copies or prints were made and these were then sent to the television stations to be transmitted. The initial big opportunity for video was in postproduction, and not production itself, and thereby reduce the 6–8-week period dramatically.

I went to one of the clients direct – it was the big supermarket chain of that time – and told them that if you want to advertise that your baked beans are only 15p this weekend, we can deliver it in 48 hours. This was the first step in the revolution in the industry. Suddenly a lot of advertisers in the industry, especially in retail, were interested. You could shoot the main body of the commercial on film, then you could shoot the pack shot, at the last minute, and then postproduce it on video. Concept to transmission in hours not weeks.

I also went to the TV transmission companies and worked with them to accelerate the process for being able to transmit. Suddenly we could make a commercial in 24 hours and went after the newspaper industry. First to *The Financial Times* and told them that everything will be black and white apart from where *The Financial Times* was on screen, which would be pink. We can shoot it today and we can get it transmitted tomorrow. We could shoot on Monday, do special effects or whatever you wanted on Tuesday and then transmit it Tuesday evening. Suddenly, even with overnight headlines, the newspaper sector could use television for advertising.

Initially, the commercials industry continued to cut on film for the main edit, using video only in the final stages of the postproduction process. After the basic editing had been done at an independent cutting room or in one of the in-house basement cutting rooms of the commercial production companies (such as HSFA), Luckwell explains that

the producer would come to MPC which alone in Soho at that time had the ability to offer clients the entire package:

The video tape postproduction facility like MPC would put the sound and the vision together, do the dissolves, and the titles and you ended up with the finished product on video tape. You'd end up with, in those days, thirteen copy videotapes which you'd send out to the transmission companies; or you could play out the commercials, i.e. a bit like a video switchboard. MPC played the commercial down the line and the transmission companies recorded the commercials at their end, but only on a Saturday morning. MPC held the relationship with the stations so we co-ordinated the playouts. We had offline equipment, online equipment, everything. It was a one stop shop.

Although music video directors and editors experimented with the early video technology, 'the main innovation did not come from the pop industry because they didn't have the money' answered Luckwell when asked if record companies funded some of this innovation through the music video supply chain. Music video producers had been early adopters of three-machine offline editing and telecine (Caston 2020, 2017); either they would edit 'online,' or they would edit 'offline' and used matched timecodes and an EDL to generate the timecode. Luckwell explained:

The innovation came from commercials. The advertising sector always wanted to use the latest technology. We developed something sophisticated that hadn't been done before: *a special effects showreel*. MPC would send out 200 u-matics of a new technique and all the agencies would love it. Their creative people would come up with an idea to use the effect. For example, we invented a machine where you could pixilate the image. You'd only ever seen the effect when you couldn't show a face [for legal reasons] and the TV stations had to pixilate the face very crudely. We got a little box with a button, a handle on it to alter the degree of the pixilation. We made a pixilation video, and then for about three months it was all over everything, it was the new thing, then it died a death. But of course, it had only cost £400 to have the device made and we'd made about £75,000 for the use of it. Some other technologies involved investing a quarter of a million pounds for a single device.

With the take-up of offline video editing by commercial production companies, dry-hire video technologies began to displace the film viewing theatres in the '70s and '80s. 'U-matics were used by everyone to show their showreels and to show finished work to their clients for approval' said Luckwell. Editor Niven Howie confirmed that demand

from agencies such as BBH and Saatchi's drove the development of facilities such as Metro Video where he worked, launched in 1982:

We supplied them with equipment to watch their commercials. None of them had their own u-matics, $\frac{3}{4}$ inches or video screens. I was employed as a driver to deliver the equipment for breakfast meetings. A $\frac{3}{4}$ u-matic in those days was a top loaded machine, a really old-fashioned clunky thing. When I started there with just three of us working at the company but by the time I left two years' later I was running the hire department and there were about fifty staff.

A major factor enabling MPC's early success was Luckwell's employment of women. This topic was raised by Luckwell when he came across press cuttings from his archives documenting the important role of women in MPC's success at a time when women were underrepresented in senior management roles elsewhere. Luckwell explained that,

I employed a lot of women in management roles and was a great believer in that. My view was that if I had a budget of say £50,000 for a job, I wanted the best person – irrelevant of sex – that I could get for the money. In those days due to the general male chauvinist malaise women were generally paid less than men, and few were offered management jobs, so often the best person for the money was a woman. I saw that as helping to level the playing field for women combined with good business sense.

In our interview several months earlier and in a slightly different vernacular, More O'Ferrell had said that,

Mike kicked out all the guys. He realised that most of the agency producers who were good were women, so he started to replace the men in the Moving Picture Company. He took a couple of commercials producers from agencies such as McCann-Erickson: Barbara Fenwick, Jenny Cole, Deborah Close, Noreen Hunter and Kerry Woodbridge.

Luckwell identified Britt Alcroft who had worked for MPC as a producer on a television series and went on to head up Gullane,⁵ and Debbie Hills, formerly MPC's accountant who was appointed MD of TVI when it was acquired by Carlton, went on to become the Head of ITV studios. Bell has argued that women's production and business roles

⁵ Gullane Entertainment PLC was a British independent production company (1984–2002) producing children's programming.

in media have tended to be devalued by what Bell terms ‘established male-dominated histories’ as non-creative, and, implied, of little or no power and consequently, little or no cultural value (2021: 3). Luckwell and More O’Farrell’s evidence suggests otherwise. The possibility that all production and business roles in media history have been rendered less creative and powerful as a result of an earlier bias in academic film studies arising from the ‘auteur’ paradigm rather than as a consistent or necessary result of bias arising from industry witnesses and sources. Alongside the relative invisibility of advertising and postproduction in screen history, this factor may have led to the omission of a major strand in women’s film history. The employment of women in advertising and postproduction business roles should be a priority for further research.

The Development of CGI/VFX

Between 1983 and 1986 MPC began to transition from ‘predominantly a production company’ to ‘predominantly a CGI and special effects company,’ says Luckwell. After the reverse takeover of Carlton, MPC’s Noel Street TV complex added a motion control studio. Although not the ‘first user’ of motion control, ‘we were the first company to have it properly computer controlled.’ ‘Special effects’, explained Luckwell, ‘were my baby.’ After ‘working as a tea boy in the movies,’ he had ‘the good fortune’ to be mentored by ‘the ultimate top special effects man of the day,’ American Ray Harryhausen: ‘he inspired me and taught me all about special effects of every kind mostly at Shepperton Studios; I was eternally grateful to him.’

When we first demonstrated CGI, we bought an old Mitchell film camera dating from about 1950 from Shepperton for about £400 when they were selling them off. We put it in a cupboard above a plotter which is a computer printer that draws a wiggly line that becomes a picture, a bit like animation cells. We pointed the Mitchell movie camera down on the plotter and put a little laser beam on top of the plotter taped on with cellotape. You opened the camera shutter and it drew the frame into the film. You could change the filter and do the next frame. We computerised that process so that we could do maybe eight seconds a night. We’d charge £1000 a second.

MPC played a crucial R&D role in the development of the new CGI hardware with the major manufacturers Quantel, Abekas and IVC. Quantel was a British company founded in 1973 and IVC UK was the British operation of the Californian International Video Corporation (IVC). In the initial stage of this development, MPC would purchase and test and refine the new digital electronics machines. ‘We were developing the ‘beta’ devices, the first machines, the ‘number one’ machines.’ MPC purchased the first

models took them to market for film and television clients to establish revenue streams. In the next stage, MPC would ‘make showreels for Abekas and Quantel for them to sell the equipment to the rest of the sector’. MPC subsequently purchased IVC UK, then Abekas and, as Carlton, Quantel.

Luckwell’s determination to use not only showreels but also trade press to create a new market for CGI and video postproduction by lobbying journalists is striking. If MPC managed to secure coverage ‘on the front page of *Broadcast Magazine*, the next day I’d get 30–40 calls asking me how I’d done it.’ He cites the front page of *Broadcast Magazine* (dated 28th September 1981) from his archives as an example. ‘This was a piece about computer graphics on 35 mm. We were selling the agencies on the idea that we could do sophisticated computer animation, even though we only had 4 filters, and we could record it on 35 mm film; they thought this was wonderful because it was still film.’ In December 1981, *Video* ran a piece on MPC’s Mitchell cameras. Other trade magazines were *Eyepiece* and *Computer Graphics*. Paintbox was another system Luckwell used the trade press to engage client interest, citing a copy of *Creative Review* from April 1982 in his archives: ‘Paint systems in video was a brand-new idea, we’d cut out a bit of the picture using paintbox. We’d keep the bit in colour but leave the rest in black and white.’

Luckwell was dependent on finding ‘early adopter’ directors keen to experiment with these new technologies. Danny Kleinman, director of the special effects James Bond title sequences from *Golden Eye* (1995) to *Time to Die* (2021) (excluding *Quantum of Solace*, 2008) was one of the few directors immediately interested in the effects potential of videotape. Kleinman saw that video ‘allowed some effects to be created more easily than on film such as layering pictures together.’ Kleinman used music videos to experiment with the new technological capabilities. ‘My first music video was shot and edited at MPC. It was one of first videos made there using early video technology, ‘Crushed by the Wheels of Industry’ by Heaven 17 (1983).’ Kleinman was willing to accommodate the lower quality image in order to attain new optical effects. It was ‘a look which film purists would be very snooty about’ (Kleinman). Editor Tony Kearns also worked with David Yardley (formerly an MPC editor) at Visions, confirming, alongside editor Niven Howie, that most music videos in this period were cut online, using razor blades, rather than offline (Kearns). Howie says that the ground-breaking SFX of Godley and Crème’s ‘Cry’ (1985) were created in an online suite using the new video techniques because offline editing couldn’t yet facilitate those visual effects (Howie).

Luckwell explained that competition was a driver of his success. ‘In the special effects and CGI sector we had one big competitor: Industrial Light and Magic/Lucas Film. We were the two leading lights, although they were much bigger than us. The industry was 52% in the USA and only 4% in the UK, so George Lucas had a much bigger

market than we did. We were second. We were their only real competitor.’ Luckwell explains how MPC studied and learned from the equipment and techniques being developed by Industrial Light and Magic:

Every year we used to make a special effects demo tape. We’d put every possible technique to use in our show reel for the following year. Everything that George Lucas did, we looked at frame by frame to see how they’d done it. And they would ask for our special effects films and they would look at every frame of how we had done it.

Much has been written on the competition-innovation dynamic, with a general consensus that competition drives innovation despite warnings about creative destruction dating from the work of Schumpeter (1942) (see OECD 2023). That competition stimulates greater innovation through peer-to-peer learning in the manner indicated by Luckwell is worthy of further research in British postproduction history particularly in relation to UKRI’s current Co-Star programme.

Television and Feature Film

Luckwell was involved in both the formation of Channel 4 and PACT. Luckwell had already formed a strong working relationship with the Thatcher Government because at MPC he had produced the Conservative Party-Political Broadcasts for the 1979 election with Tim Bell and Saatchi & Saatchi.⁶ The broadcasts were shot in MPC’s studio, edited and post-produced in MPC’s video facilities; the windows had to be painted black to conceal the presence of Margaret Thatcher for recording. Along with Michael Peacock of Video Arts and Mark Shelmardine, Luckwell was consulted early on about the formation of a new commercial broadcaster:

The Government, and Edmund Dell, the Government Minister handling it, did not believe there was a sufficiently strong independent sector to provide programming for Channel 4. The three of us overcame this by bringing Edmund to the Moving Pictures building and showing him all the cameras, studios, video postproduction suites and all the rest. He said he’d no idea all this existed outside of television stations. I said, “Oh there are loads of independent producers!” In fact, there was only one programme production company with all that – ours. He asked me to show him ‘one’ of our studios but in fact we only had one studio. He was convinced, and, after a long struggle, C4 was born and from that a UK independent programme production sector was created. Looking at the large and vibrant UK independent

⁶ See also Potter 2008: 82.

programme production sector now all those producers should say a big ‘thank you’ to the Government for creating what didn’t exist before that.

Luckwell adds: ‘then the three of us [Peacock, Shelmdardine and Luckwell] put together an organisation called IPPA, the Independent Programme Producers Association which you probably know now as PACT’ (ML). Darlow confirms Luckwell’s role in the formation of the IPPA (2004: 290). Founded in 1981, the lobbying role of the IPPA was crucial in determining the regulatory framework for the early development of independent television in Britain (see Doyle et al 2021).

MPC’s influence on film and television continued. MPC became a leading producer of British television in the early 1980s: ‘we were one of the biggest suppliers of programmes to Channel 4 in the early years and made lots of programs including a series called The Planets.’ MPC also moved into feature film production: ‘I did a three-movie contract with C4 ... Jeremy Isaacs, CEO of C4, called me and asked me to meet him about making the movies.’ Jeremy told Luckwell, ‘‘You’re the only independent production house that understands how to put the finance together on a package of films’’.’ When, in 1983, Luckwell engineered a friendly reverse takeover by MPC of Carlton, he stepped back from MPC to focus on his role as the new MD, and major shareholder of Carlton.

In 1986 Luckwell stood down from both MPC and Carlton. It was not until the late 1980s in Britain that major competitor firms in VFX started. Framestore was founded in 1986, Cinesite in 1994, and Double Negative not until 1998. Until the mid-1990s the UK’s VFX industry remained, according to Hope, ‘almost a cottage industry’ aside from MPC’s virtual monopoly on the UK & European markets from 1974 to 1994. Until the mid 1990s, it was funded almost wholly by advertising. The late 1990s to 2005 were years of dramatic transformation during which Britain’s leading VFX companies grew by 500% [sic] in terms of employment, making the UK a global centre for VFX (Dams, 2013). That later growth was, according to Luckwell, driven by the theatrical supply chain initially for cinema. In the 1990s, accelerating from 1995 onwards, MPC ‘started doing CGI for movies, almost exclusively American clients.’ Luckwell credits David Jeffers, who eventually became CEO, with the company’s VFX growth thereafter: ‘Jeffers really developed the CGI sector for movies. He was the prime mover. He takes the credit.’

In 2004, during the merger with Granda to create ITV, MPC was sold to French company Thomson SA, now known as Technicolor SA. In 2022, MPC Advertising was taken over by The Mill, another Tehcnicolor subsidiary to create the global VFX company Advertising at Technicolor Creative Studios housing both Technicolor’s animation and their VFX operations (Watshon 2022). By 2024, the landscape had been fractured with significant chunks of postproduction (and VFX) workflow and labour being delivered

remotely by sister companies outside the UK (often China and India); creatives began to depart the big companies to head up their own, smaller post-production companies in a commercial environment in which the enormous capital investment start-up costs and overheads required by the 1970s and 1980s industry were no longer existent because of the transition from an ownership to a licensee basis.

Discussion

The relevance of MPC's first two decades for an understanding of the British screen industries as a whole is significant. Luckwell's role in the launch of Channel 4 is acknowledged by Potter (2008, 82, 149), and Darlow (2004, 259–60, 264) but it does not feature at all in Lee's account (2018): his first chapter on 'the creation of the independent sector in the UK,' (2018: 19–43) contains no acknowledgement of the influence of MPC or substantial independent production sector before 1982 save for the recognition that the number of production companies making television commercials since the 1970s had increased (Lee 2018, 36). Luckwell's interview not only suggests a greater sector-wide impact of advertising on the screen industries as a whole than has hitherto been recognised by academics but valuable detail about the 'talented pool of commercials VFX artists' to which Hope refers in the *Televisual* article cited earlier: screen advertising functioned as R&D sector for television and feature films not only by serving as a training ground for VFX workers, but by bank-rolling capital investment, providing a testing-ground for early VFX hardware and software and creating a market for it. MPC's ability to leverage investment from more than one supply chain protected it against recessionary obstacles to continued growth. Operating in feature film, screen advertising and music video, MPC was protected from the shifting economic fortunes of each sector between 1970 to 2020. As with videotape postproduction, 'the main clients for special effects were initially the advertising agencies so the CGI market initially was advertising. We first used it for a toothpaste commercial. That launched it,' said Luckwell. 'The music video sector and then the television sector were also interested but they couldn't afford our budgets.'

The pitfalls of technological determinism were highlighted in the introduction. Luckwell's testimony shows that the development of video postproduction in Britain was far from an inevitable consequence of an inherent predetermined technological drive towards innovation. There was not only an absence of active demand for video, even latent demand; on the contrary, video was actively opposed by the trades union ACTT and the powerful clients and market leaders. Luckwell – and other video pioneers – created demand by conducting research, self-funding investment in new test equipment, and pursuing a process of active selling through the trade press. Luckwell's success

in video postproduction came when he identified a problem that the brands believed was restricting their ability to market their products to customers quickly because film postproduction took 6–8 weeks rather than 2–3 days of video postproduction. Noticeable about Luckwell's story is not only that he spent crucial early years of his career learning about the USA, but that he sent a member of his team to research video opportunities there as well. For a new technology or sector to cross the 'tipping point' Gladwell (2002) it needs not only clients willing to act as early adopters but the cash flow to pay not only for the adoption but the feedback loop that enables revisions and amendments to the rudimentary and often faulty or crude early technologies through an often lengthy period of R&D; in this case that phase took almost twenty years, from the launch of Drum TV in 1974 to the mid-1990s when competitors and new supply chains entered the market.

During the interview, Luckwell reported that mistakes were made and several ventures failed. MPC had invested in a Fernseh (German-manufactured) video camera, for example. 'The original idea was that we would sell the idea of shooting on video to the advertising industry by using the single camera shooting technique.' But, he explains, 'the whole of the television video production industry at that time was working with multiple cameras and you didn't edit it, you just cut from camera to camera.' The single video-camera shooting technique 'was no use to the television advertising world' at that time and 'very few agencies were willing to shoot on video.' Whilst it was adopted briefly in the mid to late 1970s by lower-budget music video producers such as Trillion, the idea of shooting on video was not adopted either by the advertising industry or the music video industry, both of which, after brief periods of experimentation, reverted to 35 mm and 16 mm film. Luckwell reports that MPC also set up 'a laser disc system which never really got off the ground; although it paid for itself thanks to a big contract with a bank, it failed.' He reflects that it was 'twenty years too soon' for interactive, but was glad that MPC 'managed to brush that failure under the carpet' in order to protect its reputation and primary growth in postproduction and VFX.

Luckwell's testimony highlights the value of financial skills in media industries. He was unusual in bringing skills, insights, knowledge and understanding of finance from an initial, successful, career in the stock market to a family trade. His father, Bill Luckwell (1913–1967) had been a British film producer and screenwriter (Chibnall and McFarlane 2011). 'None of the production companies successfully raised any money' by contrast. 'They didn't understand how to do major transactions.' With a 'stock market background' Luckwell was 'always very interested in the finance and the tax.' No one else in the industry was. That was very non-trendy, and you were looked down on for being a businessperson.' Luckwell's rare skills in leveraging finance were a major factor

with him later becoming ‘chairman at one of the Ingenious public companies involved with arranging finance and tax structures for movies and TV.’ By comparison, two other companies that entered the postproduction market in the 1970s to offer ‘all-inclusive’ postproduction facilities for the advertising industry including telecine, offline, online, mastering, titles, optical and (limited SFX), and playout packages – Molinaire and Ruses – would encounter financial problems.

Molinaire was launched at the end of 1972 by, amongst others, Stefan Sargent, moving into postproduction seriously from 1978. After initial success in raising finance, Molinaire was declared bankrupt and had to re-structure before later moving out of advertising into television. Molinaire’s experience, along with that of MGMM, illustrates the severe difficulties faced by the independent sector in the ‘70s and ‘80s sourcing bank loans and external capital investment (Caston 2019). Ruses Postproduction was launched in 1977 and famously created the post for Dire Straits’ video ‘Money for Nothing’ (1985). The company was the first in the UK to acquire a URSA machine and a C-Reality Telecine system as well as being the first to adopt a Flame SGI-based compositing suite (which was the software used for most of the 1990s effects achieved in music video and advertising). Ruses was bought by Richard Branson in 1987, and whilst by 2006 it had become a successful HD facility offering VFX and 3D, it was closed down in 2017, having been purchased by Deluxe Entertainment Services in 2011.

Luckwell’s evidence provides insight on the importance of broader political and economic factors. He collaborated with other media leaders to leverage influence on government policy to create an infrastructure conducive to wholesale technological change. Prior to PACT and the IPPA, Luckwell joined forces with documentary producer Leon Clore to launch a new trade association for the representation of production companies working in advertising, the Advertising Film Producers’ Association (AFPA, later known as the AFVPA after the addition of ‘Video’ to the title and today known as the APA). Until the early 2000s, postproduction was represented by this new advertising association. Then, in 2004, the UK Film Council and the Department of Trade and Industry asked Luckwell to launch a new organisation, UK Postproduction, dedicated solely to postproduction because they felt they had ‘nobody to talk to about postproduction and VFX.’ Luckwell was appointed Chairman and, in 2006 the organisation’s name was changed to the UK Screen Association to include film studios. In 2016 the name was changed again to Screen Alliance when it merged with Animation UK. Today it represents 170 companies, many also represented by the Event and Visual Communication Association (EVCOM) and the APA. Government support was vital to MPC’s early development. In his interview for *Televisual*, Alex Hope identified the UK tax relief as a crucial asset in the global growth of VFX from the late 1990s onward.

The role of capital investment in MPC'S ability to purchase beta models to test for manufacturers like Quantel featured significantly in Luckwell's narration. The historical insights yielded from Luckwell's interview suggest that conducting research on postproduction as a whole could be productive for the BFI RSU's sector-wide Screen Business Report (2021, 2018) which serves as the basis for Government to measure the impact of existing tax reliefs and need for new tax reliefs.

The Role of Qualitative Historical Research

This article set out to explore how historical qualitative interviews and interrogation of archival sources could facilitate a deeper understanding of the intersecting screen industry supply chains (or as Bloore, 2009, terms them 'value systems'). It was suggested that only by understanding the dynamics between the supply chains can we begin to understand the dynamics of the geo-social and economic ecology of the screen industries. The 1969 strike may have been a factor that tipped the scales in favour of seeing a move to a new postproduction process as less risky than remaining on the existing process: businesses avoid risk exposure, and the presumption in much thinking about technology adoption is that risk-averse clients will avoid innovation. Risk-averse businesses may become early adopters when existing methods are perceived to be *more risky* than innovations. When applying Rogers' 1962 model to the adoption of media technologies in screen industry history, it should be recognised that risk-averse producers may act as early adopters if there are greater risks attached to adhering to those technologies and technological production processes available in the status quo.

Qualitative methods such as Luckwell's interview can illuminate data not visible in ahistorical quantitative studies. In his useful article about conducting oral histories within businesses and commercial organisations, Perks tells us that, 'a Warwick University study of the competitiveness of nine British businesses over thirty years found that asking senior or retiring employees to provide an oral history 'can be particularly important when trying to understand some of the forces for inertia and change that characterises every organisation. While written accounts may provide a more accurate representation of chronological events, the processes of managing change will frequently be unrecorded. Oral recollections provide much which more formal written material does not' (Perks 2015: 286). ScreenAlliance has identified errors in SIC code reporting as one of the major causes of the invisibility of postproduction in screen industries research. Contemporary 'snapshots' of the size and shape of a sector, whilst crucial, are only part of the visibility required. SIC codes are a poor way to capture the involvement of single companies in multiple supply chains (Caston, 2022). Luckwell's testimony demonstrates the role that interviews, oral histories and archival

analysis can play in capturing the ways in which companies not only expand but shift and morph between supply chains or indeed drive the emergence of new supply chains. Trillion Studios, for example, does not fit neatly into a supply chain. Formed from a merger between Lion Television and Trident, Trillion was a major innovator in the mid-1970s. Its Soho premises contained a basement studio and VTRs, editing and telecine on the first floor. The company produced the video for Queen's 'Bohemian Rhapsody' (Bruce Gowers 1975) using its OB (outside broadcast) video unit to film the band live in rehearsals and mix the video streams into what has now been deemed a landmark in VFX history (Caston 2020). It was a recording studio (with a portable production gallery), record company, artist management company, film production company, postproduction facility and supplier of OB equipment: a messy company indescribable in SIC codes.

This article has demonstrated, however, that this kind of historical contribution comes with caveats and limitations. First, the labour-intensive character of qualitative historical methods limits the scope of individual investigations. It has focused on the case study of MPC and due to limits of space in a single journal article has not been able to the history of offline editing video companies, offline editing dry hire companies, the audio postproduction and music companies (another sub-sector of postproduction severely lacking in research) as well as the dubbing companies which ran off the hundreds of video masters to dispatch to regional, national and international broadcasters for the transmission of TV programmes, commercials and music videos. That data exists in many of the interviews conducted for the British Music Video and Advertising Producers' Association research projects. Moreover, the presentation of data from qualitative interviews comes with caveats about editing a long and detailed transcript into shorter excerpts for publication. As Portelli says, when interviews 'are arranged for publication omitting entirely the interviewer's voice, a subtle distortion takes place: the text gives the answers without the questions, giving the impression that a given narrator will always say the same things, no matter what the circumstances – in other words, the impression that a speaking person is as stable and repetitive as a written document.' (2015: 55). Another problem with interview testimony is that the lone voice requires contextualisation and interpretation. One has to validate the individual testimony by triangulation, but one also has to interpret it – you can't assume the testimony's meaning to be self-evident. In seeking contextualisation, the historian faces the challenge of the lack of publicly available archives. That renders private archives of the kind maintained by Luckwell of great value. To identify the existence of these private collections, academics are dependent on the kind of 'industry access' that organisations such as the APA can provide.

Oral history and unstructured interviews reveal data for which the researcher was not looking. ‘Interviews,’ as Portelli observes ‘often reveal unknown events or unknown aspects of known events; they always cast new light on unexplored areas.’ (Portelli 2015: 42). Although her research on media workers includes little on advertising, Bell observed in the plenary session of the AHRC Hidden Screen Industries research network that some workers suffer twice because they work both in hidden *professions* (such as production) as well as in hidden *industries* (such as screen advertising). Historical researchers investigating any and all dimensions of screen history need to be alert to this issue of hidden labour. Luckwell’s account resonates with research suggesting that the increasing representation of women in production-facing, executive and business leadership roles has not been captured in histories of the screen industries due to a focus on roles occupied by male workers and a lack of attention to the interplay between different sectors of the screen industries (Caston 2024). His evidence contradicts the pattern thought to have existed in media whereby ‘women [...] are under-represented in senior, decision-making roles in the creative industries, and over-represented in junior roles which are more vulnerable to precarity, low pay and short-termism’ (Bell 2021: 3).

In conclusion, this article has presented excerpts from an in-depth interview with the founder and director of MPC and its subsequent parent company Carlton in order to illuminate the relationship between screen industry supply chains and the dynamics of technological innovation in British media industries. It suggests that qualitative historical case studies, interviews and archival analysis can yield insights that may not otherwise have come to light using the quantitative research methods popular in policy-facing screen industry reports. Interviews and oral histories are useful not only in researching single organisations, but in understanding industrial clusters and supply chains, all of which develop distinctive cultures that are not visible within established paradigms. The early history of MPC, a company that came to dominate not just postproduction in the UK from 1970, but VFX from the 1980s to the 2020s demonstrates that R&D funding was supplied by the advertising industry. Far from being an obvious or necessary consequence of a pre-determined drive towards technological innovation, the adoption of video postproduction and CGI technologies by laggards in the screen industry as a whole resulted from legal and political challenges fought in court involving governments and trade unions. Luckwell’s interview aids in understanding how and why some pioneer media companies succeeded, where others failed and why certain media technologies are widely adopted at certain points in history whilst others are not. If we are to avoid the pitfalls of technological determinism, qualitative and historical studies of innovation and technology adoption in British media firms are potentially

rich sources of insight. Historians can offer a significant contribution to the resolution of contemporary questions of screen industry policy. This knowledge enables carefully targeted policy interventions to stimulate innovation, productivity and growth.

Ethics and Consent

This article has been prepared with the approval of the University of West London Research Ethics Committee.

Competing Interests

The author has no competing interests to declare.

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