# Rigged Against Them: Women Camera Operators at the BBC During the 1970s and 1980s

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# Rigged against them: women camera operators at the BBC during the 1970s and 1980s[[1]](#footnote-1)

**Abstract**

In 1973, in response to pressure from trade unions and women’s groups, and a damning report that exposed the discriminatory policies and attitudes underpinning the recruitment and employment of women, the British Broadcasting Corporation (BBC) committed to the employment of women in previously male-only technical occupations. This article examines the experiences of women working as BBC film and television camera operators following the removal of the gender barrier. It draws upon public and private archives, and oral history interviews with former BBC women camera operators, to assess the extent to which the Corporation’s commitment to equality brought about sustained change to women’s opportunities in technical areas of television. Although stereotypical assumptions about women’s technical ability proved unfounded, women’s employment in camera roles continued to be restricted though recruitment policies and procedures that favoured male applicants. Women’s entry into technical areas also challenged existing gendered power relations and workplace culture within television studios. The BBC’s lack of commitment to meaningful change to discriminatory work practices further entrenched the equation of technical skill with masculine labour.

In May 1974 the *Daily Mail* declared, ‘Two male chauvinist strongholds fell yesterday after a long and sometimes bitter siege. The result: London now has its first woman bus driver and the BBC its first girl camera operator.’[[2]](#endnote-1) The ‘girl camera operator’ was Barbara Franc, newly employed in technical operations at Television Centre in London. Franc’s employment was representative of the BBC’s declaration of a new commitment to equal employment opportunities. For the majority of BBC television’s first forty years, the BBC had employed only men to operate cameras, from the film cameras used in the news department and at Ealing Television Film Studios, to the electronic studio cameras at Alexandra Palace, Lime Grove and Television Centre. Women who approached the BBC to enquire about employment in camera roles were uniformly rebuffed, however qualified they were. In 1973, after a damning internal report exposed the discriminatory policies and attitudes underpinning the recruitment and employment of women, and amid pressure from trade unions and women’s groups, the BBC announced that it would allow the employment of women in areas that had previously been male preserves, including camera operating.

Through an examination of the experiences of women camera operators at the BBC in the 1970s and 1980s, this article analyses the extent to which the Corporation’s attempts to encourage greater gender equality brought about sustained change to opportunities for women within the organisation.[[3]](#footnote-2) Drawing on oral history interviews, and documentary evidence from private and public collections, we consider questions of technical ability, recruitment and training regimens, gendered workplace dynamics, and the collaborative nature of television production. We argue that despite the BBC’s stated commitment to equal employment opportunity, women’s employment in camera roles remained limited throughout the 1970s and 1980s. Changes to minimum education requirements, a rigidly masculine workplace culture within television studios, and structural constraints that inhibited the careers of working mothers, combined to further entrench the equation of technical skill with masculine labour.

In their studies of the printing industry in the United States and Australia, respectively, Cynthia Cockburn and Jesse Adams Stein argue that consideration of gender and the materiality of labour - ‘bodies, gestures, machines and tools’ - is vital to understanding technological change and the valuing of men’s labour processes over women’s. In broadcasting, as in the printing industry, ‘it was not merely the jobs that came to be gendered, it was the things, too.’[[4]](#endnote-2) The introduction of women into technical jobs has often ‘posed a major challenge to hegemonic masculinity’ and challenged existing power hierarchies.[[5]](#endnote-3) This article extends from this work to demonstrate that the association of camera operating with masculine skill and technical knowledge meant it was not only seen as ‘men’s work’, but also guaranteed that the entry of women into this area would disrupt normal gender relations, which would then prove resistant to change.

 This research makes a significant contribution to the history of women’s labour in the television industry, which has received less scholarly attention than that of women in the film industry.[[6]](#endnote-4) It also provides an historical context for present-day gender inequalities in television production. Examination of institutional labour practices is vital for understanding how structural discrimination and gender hierarchies within television production have been constituted and reproduced.[[7]](#endnote-5) The burgeoning of research focusing on the lived experience of workers in the cultural and creative industries, argue Mark Banks, Rosalind Gill and Stephanie Taylor, ‘amounts to something of a turn to cultural work’, although contemporary debates around cultural labour have often lacked consideration of historical precedence, and of ‘patterns of continuity and change’.[[8]](#endnote-6) There is limited scholarly historical research on women and camera work, especially in the context of the television industry, and published work often derives from biographical portraits or interviews rather than scholarly analysis.[[9]](#endnote-7) Historical studies of labour in the screen industries have mainly concentrated on the elite creative roles of director, producer and writer, although recent feminist scholarship has illuminated the experiences of women working in less visible ‘below the line’ or ‘behind the scenes’ roles, including engineers, sound workers, script assistants, editors, and costume designers.[[10]](#endnote-8) The extent of women’s creative contribution in screen production is also undergoing revision. Karen Pearlman and Adelheid Heftberger, for example, draw attention to the tendency to dismiss women in film editing roles as ‘merely technical’ rather than as expert collaborators.[[11]](#endnote-9) This creative class distinction is relevant to our discussion because the status of jobs can depend on whether they are defined as creative (above the line), or as trade and technical work (below the line). Deborah Jones and Judith Pringle point out that the above the line ‘creatives’ maintain their elite status by pushing the label of ‘worker’ below the line of creativity.[[12]](#endnote-10) In television, camera crew have traditionally been aligned with technical or trade work, which is also identified with masculine labour and culture. David Hesmondhalgh and Sarah Baker stress that we should take care not to oversimplify these distinctions because work within the ‘creative’ class, while often prestigious, can still be highly hierarchised and subject to inequalities in terms of pay and status; it is therefore more useful to consider work segregation within specific job levels rather than within whole occupational groupings.[[13]](#endnote-11)

Feminist researchers have turned to oral testimony and to unofficial or private archives as a way to illuminate the experiences of women production workers, who are often absent from public or institutional collections, and marginalised in the historiography of broadcasting.[[14]](#endnote-12) For this research, we have drawn on correspondence and other documents held in the BBC’s Written Archives Centre in Caversham (UK) and the British Entertainment History Project’s oral history collection. We also recorded new oral history interviews with three former BBC women camera operators: Barbara Franc, Mary Routh and Sheila Woodward. Franc started as a television studio camera operator at Television Centre in London in 1974, Routh began in the film unit at BBC Scotland in 1975, and Woodward worked in sound before moving into film camera in 1985.

Oral history is an important methodology for feminist media historians, partly because it creates new primary materials that can begin to fill the many gendered gaps in public collections.[[15]](#endnote-13) Shelley Cobb and Linda Ruth Williams describe the oral history interviews for their project, ‘Calling the Shots: Women and Contemporary Film Culture in the UK, 2000–2015’ as ‘both memory work and collaboration’, and ‘a dynamic process that binds filmmaker and researcher in a reevaluation of gendered opportunities and creative labour.’[[16]](#endnote-14) Our project similarly invites women to insert themselves into television history by narrating their careers, and to collaborate on a new history of British broadcasting that brings to light previously hidden actors, and reveals gendered structures and processes that have been glossed over in previous British television histories. Oral histories allow us to understand how professional and industrial transformations were experienced by individual media workers.[[17]](#endnote-15) In this research, interviews provide insight into aspects of production work that are not visible in the public record, including details of recruitment, training, workplace dynamics, and camera operators’ understanding of their professional identity.

**Gender and technology in television**

Feminist scholars have demonstrated that ‘the enduring identification between technology and manliness is not inherent in biological sex difference…[but] the result of the historical and cultural construction of gender’.[[18]](#endnote-16) A feminist perspective has also shifted understanding of what technology is. As Judy Wajcman argues, broadening the concept from its association with ‘the tools of work and war’ to consideration of everyday life technologies ‘disrupts the cultural stereotype of women as technically incompetent or invisible in technical spheres’.[[19]](#endnote-17) In *Brothers*, Cockburn writes that gendered differences in contemporary Western society, in terms of education, role models, early exposure to technology, and job market segregation, has led to ‘the construction of men as strong, manually able and technologically endowed, and women as physically and technically incompetent’.[[20]](#endnote-18)

Feminist media historians have investigated the ways that institutional structures and production cultures were themselves gendered.[[21]](#endnote-19) In the media, as in other industries, the sexual division of labour has often been based on ‘the question of skill’, so that women’s work is regarded as unskilled, and men’s as skilled.[[22]](#endnote-20) Estimations of skill, as Stein points out, are based on ‘objectively measurable aspects as well as conventions that shape a worker’s social status’.[[23]](#endnote-21) Within broadcasting organisations the sexual division of labour saw women typically filling lower paid jobs with limited career prospects, especially roles requiring ‘secretarial’ skills and those associated with caring, communication and coordination.[[24]](#endnote-22) In her 1981 study of women in the international media, Margaret Gallagher found that there was uniformly low value put on women’s skills, even when acquired through formal training. The skills associated with women’s work, ‘such as manual dexterity, typing and the many organisational skills demanded in continuity and production assistant work’, wrote Gallagher ‘not only command less money, but also less respect.’[[25]](#endnote-23) Despite this, the relationship between gender, labour and technology in the media industries has generally been under researched, and yet the equation of technology with masculine labour continues to be a barrier to women’s full employment in the international film and television industry.[[26]](#endnote-24) A 2018 report by the CAMEo Research Institute for Cultural and Media Economies found that women in the UK screen sector were under-represented in technical roles including ‘audio, lighting, camera and editing’, and Ofcom research reveals that women held only 27 per cent of technology and engineering roles in British television in 2019.[[27]](#endnote-25)

Although mastery over technology has the potential to be a source of power and fulfilment for both sexes, many women who found fulfilment in camera work have reported being made to feel uncomfortable about their interests. Madeleine Most, who began working on camera in British television in the 1970s, was drawn to the materiality of cameras, and to the possibility of a career that was the perfect combination of technology, communication and creativity.[[28]](#endnote-26) Most’s relationship with the physicality of camera work was integral to her identity, but her affinity with technology was viewed as an anomaly by male technicians:

Women don’t have enough mechanical training. Nuts and bolts weren’t part of our education, so repairing motors, engines, camera gears, or cams is alien. I watch guys bluff their ignorance when they didn’t know a particular camera-lacing pattern. But the male technicians in the camera houses talk to them simply and directly, while I’ve watched them talk to women in a childish gibberish, as if they were talking to someone mentally handicapped.[[29]](#endnote-27)

Lack of education in scientific subjects could be a drawback for women who wanted to work in technical areas. A survey of tertiary courses relating to film and television found that ‘the more closely allied the course is to actual film or television production, especially the technology side’, the fewer were the women enrolled in it.[[30]](#endnote-28) Mary Routh recalled that while attending her camera training course at the BBC, ‘one of the aspects that they went on about a lot was electricity. And I can remember being quite stunned that I’d reached the age I’d reached, which must have been about twenty-five or so, and nobody had ever taught me about electricity’.[[31]](#endnote-29) Diane Tammes recalled being regarded with ‘suspicion and hostility’ when she attended the National Film School in the 1970s, as one of just eleven women out of seventy-five students. The camera, lenses and filters felt ‘strange and unwieldly’, and her ‘struggles with the equipment were very public. […] It took a long time to acquire the dexterity to be unselfconscious. But once learnt the technical mystique became a tool to be used. The hardest task of all was just to feel that I was talented and courageous enough to persist.’ [[32]](#endnote-30) Tammes worked in both film and television, and in 1975 she became one of the first camerawomen to be accepted by the Association of Cinematograph Television and Allied Technicians (ACTT). Although she urged women to ‘think of themselves as technicians’, Tammes also acknowledged that only male camera operators were normally viewed as ‘technical expert[s]’. Both Woodward and Franc were asked in their BBC interview whether they had ever taken apart or repaired a domestic appliance – reflecting a belief that aspiring technicians would be naturally fascinated with machinery, even though few girls would have been encouraged to engage with domestic technology.

Beyond the expectation of technical prowess, the perceived requirement of strength has further defined camera work as a masculine domain hostile to women.[[33]](#endnote-31) The focus on the physicality of jobs, write Jones and Pringle, connect ‘gendered occupations to bodies in ways that naturalise inequalities’.[[34]](#endnote-32) Mary Tomsic argues that a focus on strength ‘masks the more serious concerns about “feminising” a “masculine” role’. The belief that women would be incapable of managing heavy equipment was widespread and longstanding across the screen industries. British editor Vivienne Collins recalled that when she attempted to enter the camera department at the Crown Film Unit in the late 1940s she was informed that women ‘would not be capable of humping camera equipment’. Behind this excuse, she believed, lay male camera operators’ anxiety about being ‘invaded by women’.[[35]](#endnote-33) In the BBC’s Engineering Division during the Second World War, concerns were raised over women’s suitability for steel-tape recording based on the ‘physicality required’. At the same time, other male managers believed women would excel in the same role due to their ‘more delicate sense of touch and sensitive fingers’, a trope that was also used to justify the employment of women as assistant editors.[[36]](#endnote-34) Into the 1970s, one of the primary reasons given for barring women from employment as camera operators in the BBC was ‘the heaviness of the camera and recording equipment’.[[37]](#endnote-35) In 1975, when Routh was considering applying to the BBC as a camera operator , a friend advised her to go and talk to one of the cameramen, who gave the same tired response to her questions:

And he trotted out the, oh, *the equipment’s very heavy*. I said, oh, well, there we are. I do 13 hours of karate a week and I swim 50 Olympic lengths a day. So, which bit of weed do you want to call me? *But then you have to work with men*. Oh, well, I have four brothers and I’ve been up Kilimanjaro twice. So, which bit of working with men do you think’s going to be a problem? And that's effectively the rubbish that was being spoken. […] They found it very, very improbable that women would do the job.

The weight of television cameras and the physical demands of technical work were almost always used as excuses to exclude women, and to shift attention from men’s affective discomfort at the presence of women. There are also indications that in some cases, the design of cameras made them more difficult for women to master, or acted as an additional barrier to their employment. Alison Chapman, who began as a camera operator at Thames Television in the 1980s, recalled that the BBC had a minimum height for a camera operator of about 5’ 10”, which ‘came from the days when viewfinders didn’t tilt, so if you weren’t tall enough you couldn’t look through the viewfinder’.[[38]](#endnote-36) As Wajcman has argued, technology is a key source of male power, because masculinity is embedded in the technology.[[39]](#endnote-37) At the BBC, as in other industries, gender division and inequalities not only affected who accessed the technology, but the technology itself, which was designed for the healthy male body. However, once women began working closely with television technology, the deep-rooted beliefs that women ‘could not get on with machinery’ and were ‘physically weak’ – so often put forward as reasons for not opening up opportunities to women ­– would prove to be unfounded.[[40]](#endnote-38)

# Camera operating at the BBC

In the post-war BBC television service, a small number of women employed in technical areas operated studio cameras, along with other duties such as sound mixing, vision mixing, sound floor, and gramophone operating.[[41]](#endnote-39) Ada Hakeney began working in technical operations at the BBC in Manchester in 1954, and after transferring to Leeds in 1970 filled all the operational posts in the television studio, including camera.[[42]](#endnote-40) While we acknowledge these ground-breaking women, this article focuses on the experiences of women hired by the BBC specifically as camera operators during the 1970s and 1980s. Rather than focusing on ‘pioneers’ as isolated and exceptional figures, we foreground the collaborative nature of television production, and consider the camera operator as a member of a team that must operate together in order to achieve a common goal.[[43]](#endnote-41)

In the early 1970s the BBC employed both film and television studio camera operators. The two camera disciplines were differently managed, distinctly organised, and discretely located. Film camera operators were based mainly at Ealing Television Film Studios, and in smaller numbers in the regions. Film crews shot location-based documentaries and dramas, and location inserts for studio-based dramas, current affairs and children’s programmes and sitcoms. By the 1970s they operated mainly with 16mm film camera equipment. A separate team of film camera operators serviced BBC News. Electronic cameras were used in television studios in London, where the bulk of studio sitcoms, drama, children’s programming and light entertainment was produced – as well as in regional locations such as Pebble Mill in Birmingham. Some camera operators worked on outside broadcasts (OB), using similar equipment to that found in television studios.

Different job titles and descriptions, modes of entry, and career progression patterns applied for film camera operators and studio camera operators. Film camera operators joined the BBC as trainees, learning their trade by helping the camera assistant with minor tasks. Promotion from trainee to the grade of camera assistant required examinations and interview boards, and elevation to the most senior level was not guaranteed. When the BBC was fully staffed with camera operators there could be no promotion until one of them retired or resigned: a so-called ‘dead men’s shoes’ policy.[[44]](#endnote-42) Studio camera operators followed a different path. Whereas the film group at Ealing operated as its own fiefdom – a miniature motion picture studio within the BBC – studio camera operations were more tightly integrated into the structure of the Engineering Division.

At the BBC, the positions of camera operator and assistant, along with floor manager, sound engineer, dubbing mixer and lighting assistant were closed to women until the 1970s. Other broadcasting organisations were also slow to open technical positions to women – for example, at ITV in 1975 there was just one woman working on camera.[[45]](#endnote-43) When Penny Kift applied to the BBC for a technical operator position in September 1969, while in her final year at school, she was informed that ‘we do not recruit young ladies into technical categories in the Engineering Division’.[[46]](#endnote-44) Kift studied Mathematics and Physics at A level, and her hobbies were ‘radiophonics and electronics’. Had Kift been a male student, she would have been regarded as qualified not only for entry to a training course in technical operations but to the more technically advanced technical assistant career pathway that led towards qualification as an engineer. She reapplied one year later and was given the same response.[[47]](#endnote-45) On leaving school in 1971 Kift made further fruitless enquiries to the BBC about jobs in Engineering, before securing employment in the Corporation's salaries department, where she hoped to gain 'insider' status that would make applications to Engineering more feasible. In March 1972, as the Sex Discrimination Bill was being debated in the House of Lords, Baroness Seear drew on Kift’s experiences, telling the House that Kift had been informed by the BBC,

when they did not know her sex, that her qualifications were entirely acceptable. She has now been told that physically she is not up to the job, although I understand that her doctor does not agree and she herself is fully satisfied that she is capable of performing the work required.[[48]](#endnote-46)

Not until 1974, following further lobbying of Parliament with the support of the Association of Broadcasting and Allied Staffs (ABS) union, was Kift finally successful in gaining employment as technical operator in radio, where a handful of women had been employed during the 1960s.[[49]](#endnote-47) Kift later transferred to television OB, where she enjoyed a long career. We can only speculate how many other young women, equally ambitious and qualified as Kift, took rejection letters as the ‘final word’, and were forever lost to broadcasting. It seems probable that Kift’s decision to challenge management, and to launch formal complaints about the discriminatory recruitment process, would have branded her as too unruly for a member of a television production team, which depended on harmonious relationships and respect for authority.[[50]](#endnote-48)

The main catalyst for change was a confidential internal report completed in 1973, entitled ‘Limitations to the Recruitment and Advancement of Women in the BBC’, in response to ‘considerable pressure’ from women in the BBC, and ‘years of lobbying’ by unions and the Women in Media group to improve opportunities for women employees.[[51]](#endnote-49) The ‘Limitations’ report, completed by Douglas Morgan, Chief Assistant in the Appointments Department, confirmed that women made up just five percent of senior posts, and also revealed the extent of prejudice against women across the Corporation. For women who aspired to work in technical areas of television production the report painted a bleak picture. The film group included some women assistant film editors, but all 115 film camera operators, assistants, and trainees were men. The decision to exclude women, the report claimed, was based on the heft of the equipment, as well as ‘the discomfort and sometimes danger faced by mobile film crews, and by the fact that film makers are thrown together in very close association, often sharing sleeping accommodation’.[[52]](#endnote-50) This was an absurd objection, considering that female PAs (producer’s assistants) regularly worked closely with film crews, but one that perhaps indicates a lack of trust in male crew members. The executive in charge of recruitment for film operations regarded the skillset associated with camera operations – a blend of technical camera operation, sound work, and stagecraft – as essentially ‘male interests’, and believed ‘that at the recruitment level a woman would have to be better than a man to succeed and that therefore the odds are against her.’[[53]](#endnote-51)

These prejudicial attitudes and beliefs were an illustration of what Gallagher calls ‘a male occupational ideology’ which saw many media occupations ‘demand qualities which women do not have’. The ACTT’s 1975 report on gender discrimination in the British film and television industries, ‘Patterns of Discrimination’, found that the ‘necessary qualities’ which women were most often said to lack were: ‘physical strength, physical agility, being able to “get on with machinery”, willingness to work in dark and dirty surroundings, the ability to exercise authority, and a single-minded dedication to the job’; such ‘presumed inadequacies’ Gallagher pointed out, did not reflect the reality of women’s capabilities.[[54]](#endnote-52)

The ‘Limitations’ report also revealed gendered assumptions about women’s desire for a family over their career ambitions. The chief personnel officer in Engineering envisaged ‘a poor return on [the BBC’s] investment’ if it employed women, since they would be more likely to leave ‘for marriage and family reasons.’[[55]](#endnote-53) That the BBC’s lack of child-care facilities could have a negative impact on women’s careers does not seem to have crossed the minds of the men interviewed, even though a 1972 survey conducted by the ABS found a ‘very real need for crèche facilities’ by male and female staff.[[56]](#endnote-54) The impact of motherhood on the careers of women camera operators is an issue we will return to later.

Misogyny in recruitment was matched in day-to-day operations. Senior engineering managers complained of women’s ‘physical limitations’ and their ‘more rapid ageing’. But the real obstacle to employing more women, the managers reported with some frankness, would be the inability of male crew members to accept women trainees or colleagues. The assistant chief engineer described Technical Operations as ‘an emotional area full of budding Cecil B. de Milles’ and warned that ‘the majority of men would deep down resent women coming into this area and having equal opportunity. Such a move would threaten male superiority.’[[57]](#endnote-55) While emotions associated with (male) creativity were acceptable in television, women were expected to keep their emotions in check.[[58]](#endnote-56) The ‘Patterns of Discrimination’ report also details men’s anxiety that women’s ‘intrusion’ into previously all-male areas would ‘inhibit’ men’s behaviour.[[59]](#endnote-57) The introduction of women not only threatened men’s jobs, but also their working relationships, as the experiences of Routh, Franc and Woodward show.

The Engineering Division’s bar on women operators and assistants was made clear to prospective applicants in recruitment material. Throughout the 1960s, engineering recruitment advertisements – often targeted at school leavers – specifically targeted male candidates. An advertisement from 1959 declared: ‘Prospects of promotion are excellent for the keen industrious boy, who is prepared to continue technical study’.[[60]](#endnote-58) Another, in 1963, was explicitly addressed to “Science Sixth Form Boys”.[[61]](#endnote-59) As late as 1973, Engineering recruitment advertisements retained their discriminatory wording, specifically appealing to ‘young men between eighteen and twenty two years of age’ and ‘male school-leaver entrants’ for training as Technical Operators and Technical Assistants.[[62]](#endnote-60) Despite this, BBC managers in recruitment insisted that posts in Engineering ‘had never been closed to women’, and only an ‘unwritten law’ had reserved them for men.[[63]](#endnote-61)

The presentation of the ‘Limitations’ report at the April 1973 Board of Management meeting prompted an agreement that vacancies would no longer be advertised ‘for men only’, and that opportunities for women should be encouraged.[[64]](#endnote-62) In May 1973, a BBC ‘promulgation’ (dubbed a ‘women’s rights charter’ in the press), announced that future recruitment literature would not be permitted ‘to state that women are excluded from applying for any post’.[[65]](#endnote-63) At the same time, the Corporation appeared to justify past practices of limited or no recruitment of women in some areas, arguing that, ‘some posts do not appear to attract women because of the considerable element of heavy lifting and carrying which is required, while others call for a craft training background or other qualifications which few if any women have’.[[66]](#endnote-64) This was a false statement, since we know that at least two women – Penny Kift and Barbara Franc – had applied to become camera assistants prior to the change of policy and been refused an interview despite having the necessary qualifications.

# Token gestures

Three women who benefited from the BBC’s newly professed commitment to equal employment opportunity were Barbara Franc, Mary Routh, and Sheila Woodward, who all became camera operators – Franc in television studios, and Routh and Woodward in film. Franc had first approached the BBC in 1973, aged 18, seeking employment in camera, and – like Penny Kift in 1969 – was informed that ‘women are not eligible for these jobs.’[[67]](#endnote-65) Franc had A-levels in Physics, Chemistry and Biology, as well as a passion for photography and an interest in moving images, inspired by BBC programmes like *The Snow Goose* and *Cider With Rosie*. Soon afterwards, encouraged by publicity surrounding the Sex Discrimination Bill, Franc wrote again to Television Centre, and was invited for an interview for a technical operator position. At least one of the three interviewers appeared ‘very reticent’, Franc recalled, and she was given a tough interview:

Some of them were trying to catch me out with technical questions all the time. Luckily I had gone to the library a couple of weeks before and got out as many technical books as possible, so I knew [that] if you want less light on a set you don't necessarily dim the lights because that alters the colour temperature. You just switch off some lights or put smaller lights in.

Her preparation paid off, and Franc was hired. A few months later, while undertaking the BBC’s standard technical training course at Evesham, one of the members of the interview panel approached and told her, ‘actually, you gave the best interview we’d ever heard’.

Like Franc, Mary Routh had an interest in photography. After completing a Fine Art degree at Hull College of Art, she secured a place on the Radio, Film and Television diploma course at the University of Bristol. In a small intake of 9 or 10 students, there were 4 women, and ‘we all did everything, so we all learned the technical stuff’. Routh applied for a job at the BBC on graduating from Bristol in the summer of 1975. Hoping to be appointed to a technical role, she applied to be a radio studio manager ‘because that was the only area where they had taken women’. Although her application was accepted, the next entry-level training course was at first delayed, and then cancelled. Annoyed at the delay but buoyed by freelance camera assistant experience with the BBC’s Natural History Unit, Routh sent a ‘perfect’ application for a film camera assistant job based in Glasgow:

By that time I’d lived on three continents. I’d been around the world in various ways. I had a degree, I had a postgraduate qualification. I was perfect, you know, simply. There was nothing that they could have asked me that I didn't know the answer to. In fact, I’m just trying to remember if it was that interview where they asked what hyperfocal distance was and I told them. Anyway, so I came up for the interview, I got the job.

Routh puts her success in gaining employment down to the Sex Discrimination Act, and the fact that Scotland ‘was far enough away from London to be worthy of an experiment for the BBC’.[[68]](#endnote-66) Also raised in Scotland, Sheila Woodward initially entered the BBC in 1978 as an audio assistant, but she had always aspired to do camera work. She had school ‘highers’ in Maths, Physics and Chemistry, followed by a tertiary college qualification in audio-visual aids, which would have led to a job as a school audio technician, ‘the only thing remotely connected to anything filmy or TV-ish or technical.’ She believes that she was hired because of her tertiary qualifications rather than her school subjects, and suspects that ‘they would have maybe looked for a bit more from a female back then…but also I think they were just starting to think, oh right, we need to get more women into the BBC.’ Internal BBC correspondence from 1979 confirms that in relation to the recruitment of audio assistants an emphasis on ‘programme sense and artistic flair’ over academic qualifications had led to a higher proportion of women hired for audio roles, in comparison with camera roles.[[69]](#endnote-67)

Franc and Woodward were introduced to the BBC’s practices and culture through a three-month residential training course (or ‘A’ course) at Wood Norton near Evesham in Worcestershire. The course was a requirement of all entry-level technical operations trainees, including videotape operators, OB engineers, vision mixers, and audio and camera assistants. Applicants with appropriate tertiary qualifications entered via shorter DE (Direct Entry) courses. Woodward was one of three female audio assistants in a group of 300 trainees at Wood Norton, and Franc was the only woman on her training course. For all trainees, the ‘A’ course involved numerous exams on science and engineering subjects, and practical training in soldering and metalwork. There were also more technical lessons, such as ‘having to use oscilloscopes and how to read voltages and wattages and amperages’ and other aspects that she was never required to draw on in her job.

 Having completed her training at Wood Norton, Franc moved to BBC Television Centre, where she joined Crew 20, who were ‘incredibly intrigued’ to be joined by a woman. Although they had frequently worked with women from other departments – make-up and costume were exclusively female domains, and there were many women producers and researchers – none had ever worked with a woman technical operator. Nonetheless, she found the crew’s head – Geoff Feld – to be ‘very, very supportive’. Crew 20, like all studio television crews, was assigned to a wide range of productions. The crew specialised in ‘lighter’ dramas, like *Heidi*, and televised sitcom *The Good Life*. On a rotational basis the crew also covered children’s programmes such as *Playschool* and *Blue Peter*, current affairs programmes including *Nationwide*, and *Match of the Day* (fig. 1). [insert fig. 1 here]

 As a trainee film camera operator, Mary Routh began her training at Ealing Television Film Studios, before being assigned to the small film unit in Glasgow. Routh’s colleagues were ‘intrigued and curious’ at her arrival, but she recalled little direct discrimination:

I was able to get to know them very quickly. At that time when you went in as a trainee you were a trainee for a year and the idea was that you would work with a first assistant and you would learn on the job, which is fundamentally how the film business works. You get trained by the other people. The whole hierarchy is designed that you learn from the people you work with, and therefore the more people you can work with, the more you will learn. But at the same time you tend to work with them for stretches of time. So I don't think Scotland particularly had any problem with [a woman camera operator]. One cameraman used to call me the lumpy assistant, which I just thought was very funny. But none of them found it difficult.

As Routh’s description makes clear, when working in a close-knit team whose members worked almost exclusively with each other, both the maintenance of group harmony and respect for hierarchy were vital to achieve the desired common goal of the television programme.

# Challenging the status quo

In the earliest days of her career, Franc was assigned the lowliest job on the crew: assisting more experienced colleagues as a camera assistant, helping to unload cameras from stores and rig them on pedestals, mounts and cranes inside the studio. During rehearsal, recording and transmission, when cameras were moving around the set, the camera assistants would ensure that thick camera cables did not become tangled, or would operate cranes and booms. The role of the camera assistant was heavy physical labour, more eloquently described by an informal name for the role: ‘cable basher’. Although crews were large and Franc was invariably the only woman member, she did not feel discriminated against and did not experience sexual harassment, although she later learned of subsequent women who had felt ‘sexually harassed, bullied’ at Television Centre. Franc recalled one occasion when a senior colleague ‘was determined to make a mockery’ of her. He put Franc on the bucket end of the Mole crane arm, with him seated with the camera at the other end. Normally people of similar weight were paired on a crane gig, but because ‘he was quite a big guy and very tall,’ it was difficult for her to manoeuvre the camera. ‘He was doing it deliberately to see, to push me, in a nasty way,’ she added. While such incidents were unusual, Franc felt that she had to constantly prove herself: ‘I was always alongside the cameraman that I was supposed to be looking after, as it were, looking after the equipment. I was there the whole time. And never gave anybody the opportunity to say I was slacking or I wasn’t pulling my weight or whatever.’ Franc felt the pressure of surveillance not only from her colleagues but from senior figures within the BBC. When recording an episode of the sitcom *The Good Life*, Franc realised that her presence had attracted the attention of a delegation of senior BBC managers, including Bill Cotton – then the Corporation’s head of Light Entertainment - who had ‘come specially’ to see this ‘woman on the camera crew now’.

Women camera operators often struggled to get their colleagues to stop focusing on their gender and to consider them as skilled and equal members of the crew. Franc, who felt that she had ‘got into the BBC as a token gesture’, understandably wanted recognition for her ‘merit’ and her professionalism. Similarly, Woodward said that she ‘wanted to do a good job’, and ‘didn’t feel enormous pressure to be better than men... I just wanted to be equal.’’ They also had to learn how to operate within a hyper-masculine culture that could be hostile to women. Woodward recalled the ‘very sexist’ culture within technical operations:

When I first started there, the whole – all the walls [in the transfer suite] were covered in pictures of naked women, covered, and I complained about this, as I do, and, ‘Well, the boys are quite entitled to have their pictures on the wall.’ This was the manager… So I went out and bought a Playgirl magazine and cut all the pictures of the men out and stuck them over all the women, so there were just lots of dicks everywhere [laughter], and the guys went ballistic but they couldn’t do anything about it so the whole lot got taken down.

Challenging the status quo with acts of resistance such as these meant that Woodward ‘wasn’t very popular’. It was important not to be ‘meek and mild’, said Woodward, if you wanted to be ‘treated normally’ and ‘not treated as a little girly girl’. She also insisted on carrying her own equipment, because that was part of her job: ‘Sometimes the prop guys would come over, “Oh yeah, we’ll carry that,” and I’d say, “No, it’s fine. It’s okay, I can do it.”’ (fig.2)

[insert fig.2 here]

 The mainstream press was withering in its response to the employment of women camera operators. Cartoons in the *Daily Mail* and *News of the World* (fig. 3) portrayed women in television production settings as unprofessional, witless, technically inept and overly concerned with their appearance, indicating a lack of confidence in women’s ability to excel in technical areas.[[70]](#endnote-68) Yet the anxieties around women’s inability to manage the weight and complexity of camera equipment - as had also been expressed in the ‘Limitations’ report – proved unfounded. Franc, Woodward and Routh all enjoyed working with camera equipment, although Woodward found audio much more technically demanding than film. Routh found it ‘satisfying looking after a camera and looking after the equipment and making sure the battery’s available, changing lenses, loading film’. Franc, who transferred to the film unit from Television Centre in 1977, was fascinated by the skills required in film compared to studios, which included deep technical expertise relating to lenses, filters, lighting, and the speed of film stocks. She also enjoyed having more autonomy and creative input than in technical operations, where you are more of ‘a puppet to the director’. As these experiences demonstrate, it was not learning or operating television equipment that proved the greatest hurdle for women working in technical areas – it was their desire to be treated equally and valued for their expertise. The introduction of women disrupted the existing gendered power relations and challenged the hegemonic masculinity of the television studio. As we shall see, the gendered inequalities within television would prove resistant to change. [insert fig. 3 here]

**‘Nothing has changed’**

Evidence fromthis study suggests that women camera operators fared better working with film crews, than in television studios. Woodward transferred from sound to film camera in 1985. Franc moved to the film department in 1977, where she found the work more creative, adventurous, and autonomous, and her colleagues more open, friendly and collegial. Both women described the film department as an ‘enormous family’ (fig.4). Television studio camera crews worked together on a daily basis, but as Franc recalled, they did not normally socialise outside work. Because film camera crews were smaller, the camera operator and assistant:

had to form a close bond to work efficiently, anticipating any problem or situation before it even happened. Most of the time you would be on location, so you would be in the same hotel and also, usually, had all your meals together too. You became a partnership… You had to make it work and it was usually very successful and you became close friends.

[Insert Fig. 4]

But into the 1980s, women camera operators often felt stymied in their opportunities for career advancement. Towards the end of her time at the BBC, Routh was disappointed to be increasingly pigeonholed into working on ‘women’s films’: ‘In fact, the first job I ever did was about domestic violence…Then ten years later I was working on a film about domestic violence…And I just thought, in ten years precisely, nothing has changed, therefore I think I've had enough.’ Franc, who described her employment as a ‘token gesture’, believed the BBC was not committed to real change:

if someone challenged them, they'd say, well, look…we do have a female engineer, we do have a woman behind the camera. I think they were far more aware of just being able to give a press release on that rather than really promoting, we actively think it’s beneficial to us to have more women… I’m not aware that that sensibility was ever there.

Franc spent eleven years as an assistant film camera operator, before leaving the BBC to start a family; she later ‘reinvented’ herself as a sculptor. Bored with the repetitive assignments she was given, Mary Routh left the BBC in 1988 to freelance in London, before moving to Manchester where she worked for Granada Television. She left the industry in 1993, when, pregnant with her first child, she found that manual physical work and irregular hours involved with camera operations were ‘not even remotely’ compatible with motherhood. Motherhood ‘kiboshes’ the careers of women camera operators, agreed Franc, who recalled that all her female peers eventually left the BBC to care for their children: ‘we bear children and that is a natural career break, whatever anyone says. You can go back to work afterwards, of course you can, but there is a break. And that affects your progression in things’. The ‘Patterns of Discrimination’ report pointed out that the structure of production work, which typically included location shooting, and long and unsociable hours, greatly disadvantaged women with domestic commitments. Many women also missed out on promotion opportunities while they were raising children.[[71]](#endnote-69) In later years, Routh worked as a lecturer in screen production at the University of Salford, where she witnessed the wide gap between the large numbers of young women training to be camera operators and the very few who were able to find work in the industry after graduating. It was a phenomenon that Franc has also observed: ‘I don't think much change has actually really happened. There is no snowball effect.’

 By the 1980s, it was obvious that the BBC’s commitment to equality in 1973 had not led to a dismantling of the organisation’s discriminatory labour practices and attitudes. ‘Having done its bit, the BBC then sank back into apathy’, the ABS claimed in 1978.[[72]](#endnote-70) The BBC continued to claim that the scarcity of women in the Engineering Division was due to low numbers of women studying Engineering at tertiary level. At a meeting of the BBC’s internal ‘Equal Opportunities’ group in November 1981, Christina Driver of the ABS expressed concern ‘about the slow progress in Engineering Division, and again voiced her suspicion that the qualifications required were too high’. Ron Seymour, the Senior Personnel Officer in Engineering insisted ‘that they were only as high as was necessary to ensure that the candidate was able to absorb the necessary technical knowledge. Engineering Division would welcome more women, but they had to face the fact that only a very small proportion of girls studied engineering subjects [at university]’.[[73]](#endnote-71)

 This response obscured another factor impacting the recruitment of women into technical areas: changes in the wording of Engineering recruitment advertisements following the 1973 promulgation, which may have dissuaded women from applying for studio camera operating positions. At first, job advertisements made no mention of gender, so that women were not excluded – but nor were they explicitly addressed. More subtle, but more significant, was an apparent toughening of the entry requirements. Throughout the 1960s and 1970s the BBC required trainee technical *assistants* – the young men who would train to become engineers – to have studied for A-levels in Maths or Physics. But before 1973 trainee technical *operators* – cameramen of the future – needed only ‘a good general education’ along with ‘sufficient knowledge of mathematics and physics’ to undertake an entry-level training course.[[74]](#endnote-72) By 1974, the bar to women applicants had been dropped, but the entry requirements for the two posts, as described in recruitment literature, had been equalised, so that trainee camera assistants would now require O-Levels in English, Maths and Physics – as well as study of Maths *and* Physics at A-level.[[75]](#endnote-73) Thus a woman applying for a role as a trainee camera assistant in 1974 would have to have a significantly higher level of scientific qualification than a man who had applied in 1973. Furthermore, the demand for this level of study significantly reduced the pool of potential women applicants. In the academic year 1975–6, for example, around 5,750 women attempted the Physics A-level, compared with 25,790 men.[[76]](#endnote-74) In 1977 about 10,000 women were entered for A-level examinations in Maths, compared with just over 30,000 men.[[77]](#endnote-75) As a result, these recruitment advertisements, while appearing to create equality among men and women, made it less likely that women would see themselves as qualified for such roles and would apply for them.

 By the end of the decade there was still ‘a chronic lack of women in technical jobs throughout television’, with just four camerawomen, twelve camera assistants, two women sound recordists and four women sound assistants working as ACTT members.[[78]](#endnote-76) In 1983, ten years after Barbara Franc entered as the first woman trainee camera operator, a statistical analysis of the staff working in Engineering areas across the BBC provided a stark demonstration of the perseverance of occupational segregation by sex. Of the 990 women in the Engineering Division (compared to 8,122 men), 694 of them, or 70 per cent, were in secretarial, clerical or weekly paid positions. There was just 1 female ‘Camera Operator, Trainee’, and 2 women in the role of ‘Film Cameraman/Assistant’.[[79]](#endnote-77) There was no improvement in the number of women attending entry courses in Technical Operations and Engineering. In 1978, of a total of 267 course attendees there were nine women. In 1982, just six out of 192 attendees were women – three each in Operations and Engineering. The numbers attending D.E (Direct Entry) courses were far worse: just five women were admitted to D.E. Engineering between 1978 and 1983; no women were admitted to D.E. Operations in the same period.[[80]](#endnote-78) It requires further research to ascertain whether women fared better in London or the regions, but Vanessa Jackson notes that Karen Lamb was the only woman camera operator at Pebble Mill television studios in Birmingham across the whole period of operation from 1971 to 2005.[[81]](#endnote-79)

 Despite the passing of legislation to encourage and protect equal employment opportunities, including the Sex Discrimination Act 1975 and the Equal Pay Act 1970, and internal evidence of structural discrimination within the BBC, ‘a lack of will’ meant that the problem was not properly addressed by senior management until the mid-1980s, when another damning internal report showed that the issues persisted.[[82]](#endnote-80) Over the decade following the ‘Limitations’ report, trade unions and the Equal Opportunities Commission questioned the BBC’s commitment to equal employment opportunity policy. In December 1985 the National Joint Council of Trade Unions sought from the BBC a ‘renewed commitment’ to equality. Although the passage of the Sex Discrimination Act had made it illegal to bar women from specific positions, trade union secretary Christina Driver pointed out that ‘the effects of the now illegal practice continue to be felt, in that women were not able to get the necessary training and experience in those areas before the promulgation, and depended on the effective working of the rest of the policy statement to achieve those aims’.[[83]](#endnote-81) In her 1985 report on women at the BBC, Monica Sims singled out Engineering and Technical Operations as ‘areas where women feel discrimination operates against their career opportunities’. The report recommended the encouragement of more girls into Engineering ‘by supporting maths/science training’.[[84]](#endnote-82) By the time of Jude Browne’s study of the BBC workforce in 2006, women still only made up eight per cent of occupants of the ‘camera person’ position.[[85]](#endnote-83)

 Throughout the 1970s and 1980s media organisations also overwhelmingly failed to provide support for working mothers, such as flexible working arrangements and childcare.[[86]](#endnote-84) Only in 1990, in response to Monica Sims’ report, did the BBC agree to open a crèche near TV Centre London.[[87]](#endnote-85) According to Neil Percival’s 2020 study of former television industry workers, ‘incompatibility of parenting’ is still the dominant factor influencing women’s decision to exit the industry.[[88]](#endnote-86) As Valerie Antcliff argued, increasing casualisation and the growth of the independent production sector from the 1980s onwards led to the re-emergence of patterns of gender-based discrimination which had been prevalent in the 1960s and 1970s.[[89]](#endnote-87) Browne claimed that stereotypical assumptions about mothers’ capacity to combine work and parenting, together with structural constraints that inhibited the combination of employment and childcare, had led to ‘colossal barriers to equality between men and women’ at the BBC into the 21st century. Gender equality laws and policies ‘were largely tethered to anachronistic understandings of gender roles’, further hampering meaningful change in discriminatory workplace practices.[[90]](#endnote-88)

## Conclusions

The experiences of Franc, Woodward and Routh demonstrate that anxieties around women’s capacity to manage the weight and complexity of television camera equipment were groundless. The ability to master technology was not the greatest barrier to women’s employment in technical occupations in television production. Instead, they were deterred by recruitment policies and procedures, and minimum educational requirements, which favoured male applicants. Women’s entry into technical roles challenged a masculine work culture that could prove hostile to women, especially those whose behaviour did not meet the gendered expectations for members of production teams. Their career progression was also hindered by discriminatory work structures and practices that did not support women employees with parenting responsibilities. These factors have effectively further entrenched the equation of technical ability with masculine labour.

 The 1973 promulgation and the removal of the gender bar in camera operations did not lead to a swift flowering of opportunity for women in technical areas in the BBC. Lingering sexism, and changes to qualification requirements for training programs meant that only a very few women trained as camera operators into the 1980s. Far from provoking an immediate revolution in the employment and training practices of the BBC, law and policy changes in the early 1970s had a very limited impact in terms of balancing the gender profile of the BBC’s camera operators. Superficially momentous events – like the enactment of the Sex Discrimination Act 1975, or the ‘Limitations to the Recruitment and Advancement of Women’report – were followed by more regressive, often hidden, changes in employment policy and practice. Almost fifty years after the events discussed in this article, gender equality in technical roles, including camera operating, remains an issue in the film and television industries.

1. The authors wish to thank Kate Terkanian, Kaitlynn Mendes, and the anonymous peer reviewers for their assistance with this article. Jeannine is grateful for the insights and support of her colleagues in the ‘Interiors’ research group at Macquarie University, especially Nicole Matthews and Karen Pearlman. [↑](#footnote-ref-1)
2. ‘We’ve Made It at Last, Say the Pioneers’, *Daily Mail*, 25 May 1974. [↑](#endnote-ref-1)
3. The BBC used various job titles for people who worked on cameras depending on the department, occupational classification or level. These job titles changed over time, and included the gendered title of ‘cameraman’. To avoid confusion, we have used the non-gendered term ‘camera operator’ unless quoting an original source. [↑](#footnote-ref-2)
4. Jesse Adams Stein, *Hot Metal: Material Culture and Tangible Labour* (Manchester: Manchester University Press, 2016), 107; Cynthia Cockburn, *Brothers*, or ‘On the Machinery of Dominance: Women, Men, and Technical Know-how’, *Women’s Studies Quarterly* 37, no. 1 and 2 (2009): 269–73. [↑](#endnote-ref-2)
5. Cynthia Cockburn, *Brothers: Male Dominance and Technological Change* (London: Pluto Press, 1983); Stein, *Hot Metal,* 107. [↑](#endnote-ref-3)
6. For women’s work in film, see for example, Erin Hill, *Never Done: A History of Women’s Work in Media Production* (New Brunswick, New Jersey: Rutgers University Press, 2016); Mary Tomsic, *Beyond the Silver Screen: A History of Women, Filmmaking and Film Culture in Australia 1920-1990* (Melbourne: Melbourne University Publishing, 2017); Christine Gledhill and Julia Knight (eds), *Doing Women’s Film History*; Melanie Bell, *Movie Workers: The Women Who Made British Cinema*  (University of Illinois Press, 2021). [↑](#endnote-ref-4)
7. Denise McKenna, ‘Editor’s Introduction: Labor’, *Feminist Media Histories* 4, no. 1 (2018): 3–4. [↑](#endnote-ref-5)
8. Mark Banks, Rosalind Gill and Stephanie Taylor, ‘Introduction: Cultural Work, Time and Trajectory’, in *Theorizing Cultural Work: Labour, Continuity and Change in the Cultural and Creative Industries* (London: Routledge: 2013) 1, 5. [↑](#endnote-ref-6)
9. Julie James Bailey, *Reel Women: Working in Film and Television* (Sydney: Australian Film Television & Radio School, 1999); Harriet Margolis, Alexis Krasilovsky, and Julia Stern, *Shooting Women: Behind the Camera, Around the World* (Bristol; Chicago ILL: Intellect, 2015); Lisa French, *Womenvision: Women and the Moving Image in Australia* (Melbourne: Damned Publishing, 2003). [↑](#endnote-ref-7)
10. Miranda J. Banks, ‘Gender Below-the-Line. Defining Feminist Production Studies’, in Vicki Mayer, Miranda J Banks, John T Caldwell (eds), *Production Studies* (New York, NY: Routledge), 87–98; Melanie Bell, ‘Learning to Listen: Histories of Women’s Soundwork in the British Film Industry’, *Screen* 58, no. 4 (2017): 437–57; Emma Sandon, ‘Engineering Difference: Women’s Accounts of Working as Technical Assistants in the BBC TV Service between 1945 and 1955’, *Feminist Media Histories* 4, no. 4 (2018): 8-32; Helen Warner, ‘Below-the-(hem)line: Storytelling as Collective Resistance in Costume Design’, *Feminist Media Histories* 4, no.1 (2018): 37–57; Melanie Williams, ‘The Continuity Girl: Ice in the Middle of Fire’, *Journal of British Cinema and Television* 10, no. 3 (2013): 603–17. [↑](#endnote-ref-8)
11. Karen Pearlman and Adelheid Heftberger, ‘Editorial: Recognising Women’s Work as Creative Work’, *Women at the Editing Table: Revising Soviet Film History of the 1920s and 1930s* (ed. by Adelheid Heftberger and Karen Pearlman)*.* Special Issue of *Apparatus. Film, Media and Digital Cultures in Central and Eastern Europe* 6 (2018)*.* DOI: <http://dx.doi.org/10.17892/app.2018.0006.124> [↑](#endnote-ref-9)
12. Deborah Jones and Judith K. Pringle, ‘Unmanageable Inequalities: Sexism in the Film Industry’, *The Sociological Review* 63, no. 1 supplementary (2015): 42. [↑](#endnote-ref-10)
13. David Hesmondhalgh and Sarah Baker, ‘Sex, Gender and Work Segregation in the Cultural Industries’, *Sociological Review* 63: S1 (2015): 29. [↑](#endnote-ref-11)
14. Janet McCabe and others, ‘Researching Women’s Television History’, in *The International Encyclopedia of Gender, Media and Communication*, ed. Karen Ross(Hoboken, NJ: Wiley-Blackwell, 2020), Wiley Online Library, 19; Cobb and Williams, ‘Histories of Now: Listening to Women in British Film’, *Women’s History Review* 29, no. 5 (2020): 892; Vicky Ball and Melanie Bell, ‘Working Women, Women’s Work: Production, History, Gender’, *Journal of British Cinema and Television* 10, no. 3 (2013): 551. [↑](#endnote-ref-12)
15. The British Entertainment History Project’s (BECTU) collection of over 800 interviews with practitioners from the film, broadcasting and theatre industries includes just two women who worked on camera in British television in the 1970s and 1980s: Alison Chapman and Diane Tammes, both of whom were employed in commercial television. [↑](#endnote-ref-13)
16. Cobb and Williams, ‘Histories of Now’, 894, 898. [↑](#endnote-ref-14)
17. Miranda J. Banks, ‘Oral History and Media Industries: Theorizing the Personal in Production History’, *Cultural Studies* 28, no. 4 (2014): 545. [↑](#endnote-ref-15)
18. Judy Wajcman, *Feminism Confronts Technology* (Sydney: Allen and Unwin, 1991), 144. [↑](#endnote-ref-16)
19. Wajcman, *Feminism Confronts Technology*, 144. [↑](#endnote-ref-17)
20. Cockburn, *Brothers: Male Dominance and Technological Change*, 203. [↑](#endnote-ref-18)
21. Jeannine Baker and Jane Connors, ‘Glorified Typists in No-man’s Land: The ABC Script Assistants’ Strike of 1973’, *Women’s History Review* 29, no. 5 (2020): 841–859; Jeannine Baker, ‘“Once a Typist Always a Typist”: The Australian Women’s Broadcasting Co-operative and the Sexual Division of Labor at the Australian Broadcasting Commission’, *Feminist Media Histories* 4, no. 4 (2018): 159–183; Bell, ‘Learning to Listen’, 438; Anne O’Brien, *Women, Inequality and Media Work* (London: Routledge, 2019); McKenna, ‘Editor’s Introduction: Labor’, 2–4. [↑](#endnote-ref-19)
22. Jane Castle, ‘When girls grow up to be cameramen’, in Lisa French, *Womenvision: Women and the Moving Image in Australia*, 58-61. [↑](#endnote-ref-20)
23. Stein, *Hot Metal*, 109. [↑](#endnote-ref-21)
24. Hesmondhalgh and Baker, ‘Sex, Gender and Work Segregation’, 30; Baker, ‘“Once a Typist Always a Typist”’. [↑](#endnote-ref-22)
25. Margaret Gallagher, *Unequal Opportunities: The Case of Women and the Media* (Paris: UNESCO, 1981), 93; Association of Cinematograph and Television Technicians (ACTT), ‘Patterns of Discrimination Against Women in the Film & Television Industries’ (ACTT, 1975), 4. [↑](#endnote-ref-23)
26. Jones and Pringle, ‘Unmanageable Inequalities’, 44-45; Hesmondhalgh and Baker, ‘Sex, Gender and Work Segregation’, 28. [↑](#endnote-ref-24)
27. CAMEo Research Institute for Cultural and Media Economies, ‘Workforce Diversity in the UK Screen Sector: Evidence Review’ (Leicester, 2018): 24. Available at <https://le.ac.uk/cameo/publications/research-and-policy-reports>; Ofcom, ‘Diversity and Equal Opportunities in Television: Monitoring Report on the UK-based Broadcasting Industry’ (2019): 20. Available at <https://www.ofcom.org.uk/__data/assets/pdf_file/0028/166807/Diversity-in-TV-2019.pdf>. See also Shelley Cobb, Linda Williams and Natalie Wreyford, ‘Calling the Shots: Women Cinematographers on UK-Qualifying Films 2003-2015’, (Report), 2019, <https://womencallingtheshots.com/reports-and-publications/>. [↑](#endnote-ref-25)
28. Madelyn Most, quoted in Alexis Krasilovsky, *Women Behind the Camera: Conversations with Camerawomen* (Westport, Conn.: Praeger, 1997): 103. [↑](#endnote-ref-26)
29. Madelyn Most, quoted in Krasilovsky, *Women Behind the Camera*, 105. [↑](#endnote-ref-27)
30. ‘Patterns of Discrimination’, 5. [↑](#endnote-ref-28)
31. Mary Routh interviewed by Jeannine Baker, Helensburgh (UK), 6 December 2018. All subsequent direct quotes from Routh are from this interview. [↑](#endnote-ref-29)
32. Diane Tammes, ‘Camerawomen Obscura: A ‘Personal’ Account’, *Women’s Studies International Quarterly* 3 (1980): 60. [↑](#endnote-ref-30)
33. Tomsic, *Beyond the Silver Screen*, 148; see Joan Long, ‘“You Can’t Climb Ayers Rock With 35mm Gear”, Part 2 of a Historical Survey of Women in Australian Film Production’, *Cinema Papers*, no.10 (Sept/Oct 1976): 138-41, 180; Wajcman, *Feminism Confronts Technology*, 146. [↑](#endnote-ref-31)
34. Jones and Pringle, ‘Unmanageable Inequalities’, 45 [↑](#endnote-ref-32)
35. Vivienne Collins interviewed by John Legard and Alan Lawson, 30 January and 27 May 1997, no. 398, British Entertainment History Project (BECTU). [↑](#endnote-ref-33)
36. Kathryn R. Terkanian, ‘Women, Work, and the BBC: How Wartime Restrictions and Recruitment Woes Reshaped the Corporation, 1939–1945’ (PhD thesis, Bournemouth University, 2018), 138. [↑](#endnote-ref-34)
37. ‘Limitations to the Recruitment and Advancement of Women’, 1. [↑](#endnote-ref-35)
38. Alison Chapman interviewed by Nick Gilbey, 12 May 2016, no. 685,

BECTU. [↑](#endnote-ref-36)
39. Wajcman, *Feminism Confronts Technology*. [↑](#endnote-ref-37)
40. ‘Patterns of Discrimination’, 9. [↑](#endnote-ref-38)
41. Sandon, ‘Engineering Difference’; Kate Terkanian ‘Women, Work, and the BBC’; Molly Brownless interviewed by Jeannine Baker, Campbells Creek, Victoria (Australia), 17, 18 and 20 March 2019. [↑](#endnote-ref-39)
42. Ada Hakeney interviewed by Sue Bradley, Hull and Newcastle, 12 February & 12 June 2017, for the History of Women in British Film and Television Project, BECTU. [↑](#endnote-ref-40)
43. John Ellis, ‘Filming for Television: How a 16mm Film Crew Worked Together’, *View Journal of European Television History and Culture* 8, no. 15 (2019): 91-110. [↑](#endnote-ref-41)
44. Sheila Woodward interviewed by Jeannine Baker, via Skype, 3 September 2019. All subsequent direct quotes from Woodward are from this interview. [↑](#endnote-ref-42)
45. ‘Patterns of Discrimination’, 28. [↑](#endnote-ref-43)
46. J.D. Esler, Engineering Recruitment Officer to Penny Kift, 23 September 1969, private collection. [↑](#endnote-ref-44)
47. V. Johnstone, ‘“Pioneers Only Need Apply”: A Qualitative Sociological Examination of Sexual Discrimination and its History in Industry, With Special Reference to Female Employment in the Media’ (BA Hons. Thesis, Manchester Polytechnic, 1980), 30. [↑](#endnote-ref-45)
48. House of Lords Hansard, Anti-Discrimination (No. 2) Bill Hl, 14 March 1972, Volume 329, Column 340. [↑](#endnote-ref-46)
49. ‘Limitations to the Recruitment and Advancement of Women in the BBC’, Report to Board of Management, BBC WAC, BM(73) 31, 8. [↑](#endnote-ref-47)
50. Baker and Connors, ‘Glorified Typists in No-man’s Land’, 843–845. [↑](#endnote-ref-48)
51. ‘Patterns of Discrimination’, 34; ‘Limitations to the Recruitment and Advancement of Women’; Shaun Usher, ‘Women Are Given the Freedom of the BBC’, *Daily Mail*, 11 May 1973; Martin Huckerby, ‘All BBC Posts Will Be Open to Women’, *The Times*, 11 May 1973. [↑](#endnote-ref-49)
52. ‘Limitations’, 1. [↑](#endnote-ref-50)
53. ‘Limitations’, 1. [↑](#endnote-ref-51)
54. Gallagher, ‘Unequal Opportunities’, 101. [↑](#endnote-ref-52)
55. ‘Limitations’, 6. [↑](#endnote-ref-53)
56. ‘Early Results Show Increased Need for Creche Facilities’, *ABS. The Association of Broadcasting Staff*, August 1972; ‘Oh Baby! BBC is Asked for Creches’, *Evening Standard*, 9 January 1973. [↑](#endnote-ref-54)
57. ‘Limitations’, 7. [↑](#endnote-ref-55)
58. Baker and Connors, ‘Glorified Typists in No-man’s Land’. [↑](#endnote-ref-56)
59. ‘Patterns of Discrimination’, 11. [↑](#endnote-ref-57)
60. ‘The Science Sixth and the BBC’, *The Listener*, 16 April 1959. [↑](#endnote-ref-58)
61. ‘BBC Technical Training’, *The Listener*, 18 April 1963. [↑](#endnote-ref-59)
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