‘Britain — Nation of Conservative Adventurers!’ So claimed the December 1959 issue of The Ambassador Magazine, a British export journal for textiles and fashions run by German émigré Hans Juda. The issue features a photograph of a dashing young male model wearing a tartan kilt in a rugged highland scene (Fig. 1) and typifies the ethos of the magazine described as both ‘one of the most bravely conceived and strikingly designed trade magazines ever to be published’ and one that ‘understood that progress in Britain was rooted in a sense of appreciation for the past’ (Breward, 2012, p. 15). The Ambassador combined an increased post-war British patriotic stance with the internationalism of the modernist inter-war project. It privileged a radical approach that embraced promotional creativity (p. 10) and encouraged an ‘alliance between the arts and industry’, actively encouraging the involvement of young musicians and artists (Stapleton, 2012, p. 18). Juda’s editorial for a bumper ‘Creative Britain’ edition of November 1964 claimed ‘the Arts are not luxuries . . . they are a tough living force in our world’ (Breward, 2012, p. 12). This is represented in the magazine by the Bauhaus-influenced radical fashion photography of Juda’s wife Elsbeth, further abstract photography of textile designs, and editorials as much concerned with discussing creative endeavour as sales. This mix was also reflected in promotional industrial film of the post-war period where the emphasis on aesthetically driven cinematography, elaborate lighting and tracking shots was enhanced, and often shaped, by the commissioning of substantial orchestral musical scores and poetic commentaries with literary ambitions. These so-called ‘prestige’ documentaries were the living embodiment of Juda’s art-industry alliance: they were funded by commercial companies or trade bodies that bought into the idea that big budgets and a potentially radical creative freedom (but one that still acknowledged tradition and the need for clear promotional exposition) could enhance their standing and ultimately increase sales. Russell and Taylor sum up post-war documentary as an ‘applied art, whose big political idea was less to critique society from without than to aid its humane and effective functioning by illuminating the interconnections on which it is built from within’ (2010, p. 5), a trope that sprang naturally from the social democratic consensus of the period. This overall approach of an accommodation between contemporary artistic practice and commerce, modernity and a rootedness in the past had an enormous influence on the British textile industry generally. Beyond magazines like The Ambassador, this approach can be seen in the likes of the semi-abstract designs of William Mitchell’s ‘The Story of Wool’ sculptural mural (1968) for the UK headquarters
of the International Wool Secretariat (IWS) in Ilkley, as well as in experimental prestige industrial documentaries such as Weave Me a Rainbow (McConnell, 1962), sponsored by the National Association of Scottish Woollen Manufacturers (NASWM) and the main subject of this chapter.

The British woollen textile industry was one that was all too aware of the importance of the export market. The wool industry was essentially a luxury one with bodies like the IWS being formed in 1937 in Australia to fight the growing global threat of artificial fibres, a threat even more pertinent by the early 1960s with the decline of wool manufacturing in Britain in the face of much cheaper imports generally. In Scotland, the NASWM, a promotional trade body formed in 1924, was as keen as any to show that the woollen trade could also be a modern and scientifically-based industry as much as one which produced nylon and polyester fibres. It therefore embraced progressiveness in design and was receptive to the use of more avant-garde promotional practices to this end such as the artistic ambitions of Templar Film Studios.

Figure 1: Elsbeth Juda’s photograph from the December 1959 issue of The Ambassador Magazine. © Elsbeth Juda/Victoria and Albert Museum, London.
who made *Weave Me a Rainbow*. This is also reflected in the numerous features and articles on Scottish textile production in *The Ambassador* such as ‘Accent on Scotland’ (1950, July), ‘Ambassador from Scotland’ (1954, July & 1955, November), ‘Scotland’s New Sophistication’ (1959, August), and ‘Scotland the Brave’ (1967, August). The idea of creative promotion was therefore part of the thinking of bodies like the NASWM, that itself had an occasional voice in *The Ambassador*. The sometimes contradictory pull of modernity and tradition espoused by the magazine is arguably a particularly strong feature of the Scottish psyche, and one that has been open to much debate and question in terms of the nation’s dominantly romantic or parochial representation in film and other media (see McArthur, 1982 and Blain, 1990). In terms of the selling of Scottish woollens around the world however, the NASWM saw the combination of the ‘timeless’ features of traditional skills and craftsmanship, and a modern, forward looking approach to colour, design and fabric technology, as crucial, a view espoused by *The Ambassador* in numerous editorials for Scottish features, such as in August 1959:

What pinpoints the 1960 Scottish tweed, giving it its new sophistication, while retaining its traditional individuality? Coatings are still warm and luxurious but light to wear . . . [and] feature the smoother textures which are today at the avant-garde of fashion. . . . Colours, too, reflect the feeling for lightness in a luminosity that gives fabric a ‘lift’ without altering its tone value. . . . The Scottish weaving tradition, built on handicraftsmanship has changed to modern production methods without loss of individuality. The same applies to spinning and dyeing. Now carried out in the finest modern plants, this results in the production of new types of yarn as well as a reliable range in unlimited colours (*Scotland’s new sophistication*, pp. 53 – 54).

It is in this specific context that the NASWM’s funding and ultimate approval of *Weave Me a Rainbow* for use as promotional material must be placed.

Much of the liaison with NASWM and promotion of the film was undertaken by Forsyth Hardy, Director of the Films of Scotland Committee, the government body under whose auspices the film was made and which had a remit to ‘promote, stimulate and encourage the production and circulation of Scottish films of national interest’ (Films of Scotland Committee, 1955). The Committee had a particular interest in promoting Scottish *industry* but because it received no funding, relied on industry itself for sponsorship (except for a small amount from the Central Office of Information that
helped part-fund the film’s production and overseas distribution). Films of Scotland embraced the notion of documentary as an ‘applied art’ aiding society’s ‘humane and effective functioning’, allying it to a Caledonian perspective and promoting its idea of ‘Scotland on the Move’. Its publicity material describes *Weave Me a Rainbow* as containing ‘outstanding colour photography’ that ‘opens a new perspective on fashion and design’ (Scotland on screen, 1965, p. 105). John Grierson was a founding member of the Committee and a key player, writing film treatments (notably for the Academy Award winning *Seawards the Great Ships* of 1960) and advising young filmmakers such as Edward McConnell (1936 – 2018), director of *Weave Me a Rainbow*. Grierson’s influence on British documentary generally, and especially on Films of Scotland in this era cannot be underestimated. McConnell describes how in the early 1960s ‘great philosophical discussions’ with Grierson over ‘a few gins’ in Glasgow’s Royal Hotel were ‘great learning times’ (McBain, 2014). Grierson’s belief in documentary’s ability to reveal the poetry of the actual as a means of ‘illumination and persuasion’ (Grierson, 1962, p. 4) was deeply influential. He was trying to ‘put the art’ into the sponsored film according to McConnell, thus allowing the filmmaker to explore the aesthetics of industrial processes.3

The ‘putting of art’ into the sponsored documentary chimes with the ethos of *The Ambassador* and a network of associations seems to have been at play. *Weave Me a Rainbow* features animations by Halas and Batchelor who, by 1962, were renowned for their witty and sophisticated work, not least for Britain’s first animated feature, *Animal Farm* (1954) but according to John Canemaker, it was Grierson who helped them get work with the Ministry of Information in 1941, effectively launching their careers (Halas and Wells, 2006, p. 214). Meanwhile, in August 1946, Halas and Batchelor had made a promotional film called *Export or Die* for the Ministry, promoting the need for British exports. The title is a phrase coined by Hans Juda as a mission statement for the first issue of *The Ambassador* in March of the same year; for Juda, only exports, and especially those of the textile trade, could help Britain to get back on its feet after the devastation of the war (Stapleton, 2012, p. 23). The network extends backwards too: Grierson championed the drawn film-stock animations of Len Lye in the 1930s for a series of Post Office promotions; and Lye’s notion of ‘freedom of expression’ had a deep influence on Halas and Batchelor (Halas and Wells, 2006, pp. 92 & 158). This encouragement of young unknown talent (often with a radical bent), bringing their abilities to bear on his idea of the public consciousness-raising documentary film was typical of Grierson who famously employed the then little-known Benjamin Britten...
to compose the score for Night Mail (Watt and Wright, 1936). The commissioning of Frank Spedding’s score for Weave Me a Rainbow, only his second film score following his work on The Heart of Scotland another Films of Scotland vehicle of the same year (Henson, 2001, p. 22), was thus a typically bold move of the Committee and followed in the footsteps of Iain Hamilton’s work on Seawards the Great Ships. Neither composer was known for film scoring and their eclectic styles embraced both a contemporary expressive language and one steeped in musical tradition, almost the archetypical British conservative adventurers of Juda’s imagination.

III

Weave Me a Rainbow is 27 minutes long and details the ‘journey of wool’ from a graphic depiction of the birth of a lamb on a Scottish hillside (with only a heartbeat as soundtrack), to trendily modelled high-fashion woollen clothing. Its working title was
‘Scottish Woollens’ and it was initially ‘composed of six movements’, according to the film treatment (Grant, 1961, p. 7). These become ‘Sequences’ in the shooting script (McConnell, 1961):

1. – The Miracle of Birth
2. – The Micro-Photography of Wool
3. – Yarn Manufacture
4. – Design
5. – Of Wool and Scotland
6. – Cloth and Clothing

In the final edit, Sequence 5, Of Wool and Scotland, was incorporated into Sequence 2, breaking up that section’s detailed scientific exposition. From the start, the commentary emphasizes that ‘wool is born, not made’, but this initial appeal to the natural, and reposit to those promoting artificial fibres, is immediately countered by Halas and Batchelor’s cutting-edge animation depicting the scientific properties of wool, followed by Gordon Coull’s quite radical and experimental cinematography of the working mill environment. Spedding’s jazz-inspired score with classical and modernist-tinged leanings (to be discussed in detail later) is used throughout. The natural and traditional are never far away however, depicted through images of the Scottish landscape, its subtle winter and autumnal hues shown as the basis of the cloth colour palette; traditional Shetland hand-plucking of sheep’s wool, and age-old, timeless textile patterns (all from the Of Wool and Scotland sequence). The commentary combines a quite poetic approach to names of places, cloth patterns and types of wool with a more hard-hitting factual style detailing cutting edge scientific understanding of the nature of wool, current dye technology and yarn manufacturing processes. The film finishes with a ‘hard-sell’ showing the finished haute couture wool clothing modelled by international members of what it calls the ‘jet set’ in rural and urban Scottish settings (Cloth and Clothing). It is accompanied by a wryly-humorous commentary that sounds dated and sexist today; the female models are treated to typical condescension.

Weave Me a Rainbow certainly had international success in both aesthetic and marketing terms. Amongst several screenings at prestigious film festivals such as Venice (1962), it won first prize in the category of Technical-Industrial Films at the International Festival of Electronic, Nuclear and Teleradio-Cinematography in Rome in 1963, (Qualities to win awards — Scottish success, 1963), was purchased by the
Pittsburgh Board of Education Service Centre (Films of Scotland Committee, 1966, p. 1) and was ‘in active use by the National Wool Textile Export Corporation in South Africa’ where a Durban department store used it for a series of staff training exercises (Films of Scotland Committee, 1967a, p. 1). The *Times* describes the film as having ‘an imaginative approach that lifts [it] out of the ordinary, a sense of sincerity and authenticity [that] immediately communicates itself to the viewer’ (Qualities to win awards — Scottish success, 1963).

In the context of this collection what is of especial note in the film is how the musical score in combination with the imagery, parallels the Judas’s notion of *The Ambassador* as an ‘experimental platform for presenting textiles in the context of a refreshingly modern approach’ (Thomas, 2012, p. 46). This idea draws on the advertising stance of the *Neue Sachlichkeit* (New Objectivity) of 1920s Germany, influenced by the Bauhaus School and marked by precision and abstraction in reaction to the domination of ‘pictorialism’ (pp. 49 – 50). Both the ‘refreshingly modern approach’ and ‘precision and abstraction’ are apparent in John Grant’s treatment for *Weave Me a Rainbow* which places emphasis on close-up and extreme close-up photography for long sections of the film that detail yarn production from wool sorting, scouring, carding and blending to spinning and weaving:

> [I]t is important to maintain a consistent film style. By eliminating all sense of the machine to concentrate always on what is happening to the wool itself we can aim at producing a hushed and dream-like impression, as though the eye were being stroked by a butterfly wing (1961, p. 9).

The lack of visual context combined with highly creative use of lighting, elaborate tracking shots and disorienting camera angles, makes the imagery vivid, abstracted and surreal. Director McConnell’s time at Glasgow School of Art in the 1950s was also influential (personal communication March 15, 2017) and he has echoed Grierson’s idea that ‘cinema is like painting’ (1968, p. 4), likening the work of Picasso, Cezanne and the Futurists to his approach:

> they were all trying to get dynamism and movement. They were pre-empting the movement of cinema. If you examine a Picasso — for example, a vase on a table — it is almost like an edited sequence from a film. A vase from above, the sides, looking down, looking up. Picasso had the totality of an image in an instant, and this is a thing that . . . film can do (Donald, 1964, p. 41).
As suggested, the yarn and cloth become a central focus, yet the processes to which it is being subjected can remain mysterious despite occasional explanation in the commentary. Occasionally, all that the viewer sees is ‘objectified’, to the point of complete abstraction such that one can only guess what the image might be showing (Fig. 4). The success of such visual strategies relies as much on the musical soundtrack as Coull’s photography, its ‘important contribution’ presaged in the treatment (Grant, 1961, p. 11). The treatment and shooting script emphasize music’s ‘imaginative use’ and are quite detailed in places suggesting, for example, the music should change ‘to march tempo’ on a cut to the ‘military precision’ of a ‘400-strong battery’ (p. 9) of automatic spinning mules making the yarn, and later, as the focus shifts to machinery mechanisms, ‘to an architectonic precision’ (McConnell, 1961, p. 7) (Fig. 4).

However, this ‘refreshingly experimental approach’ to the presentation of textiles in the film also embraces, rather than rejects, pictorialism, something that has a long tradition in Scottish visual art and again, sound plays a key role. The claustrophobia of the mill and workshop interiors is interspersed at quite starkly drawn key structural points with more static picturesque panoramas of the beauty of Scotland’s landscapes.

In Sequence 4, Design, the driving music and location sounds of the mill are replaced with birdsong, a distant barking dog, sheep bleating and the hum of the wind, with the sparse voice-over taking on the form of what the treatment describes as ‘verse commentary’. The action moves inside to a surprisingly long static shot of a still room. The sound of the wind is still present but it is now joined by a slowly ticking clock indicating thoughtful calm and reflection. A large country house interior is revealed where the designers are shown thinking up their designs, inspired, as the commentary says, by ‘the colours of Scotland . . . a landscape recaptured in wools’. Gentle dissolves between close-ups of pieces of cloth and heathers and grasses, trees and hillsides, bring home the point, but the discussion is also of the heat of summer in Tokyo and the need for new lightweight wool fabrics (a topic discussed in detail in the August 1959 Ambassador editorial cited above): innovation and the contemporary are addressed by drawing on the wisdom and strengths of the past.

The stark contrasts drawn in Weave Me a Rainbow apply to both its content and the way it is couched, its ‘promotional creativity’: modernity and tradition; the industrial urban and pastoral rural; the scientific and natural; the conservative and adventurous. These contrasts are also a key feature of Frank Spedding’s compositional language which is in keeping with what Matthew Riley characterizes as the British approach to ‘aesthetic modernity’. Technical innovation mattered but was not seen as ‘the
Figure 3: Production photograph of mill machinery. © National Library of Scotland.

Figure 4: Production photograph of mill machinery: a twisting machine. © National Library of Scotland.
necessary and inevitable response to the contemporary situation in either music or society’ and so, for some British composers, ‘the new vocabulary of music took its place next to the old and could be drawn on freely and eclectically’ (2010, p. 9). This arguably coincided with European musical modernism’s general rapprochement with the past and rejection of the *tabula rasa* insistence of the immediate post-war avant-garde. In Britain this was pushing at an already open door. Spedding was an admirer of Schoenberg and Webern, along with Haydn, Mozart, late Beethoven, Liszt and Kurt Weill: he ‘was devoid of musical snobbery in a way which only those with an encyclopaedic knowledge of the repertoire seem to manage’ (Inglis, 2001 and Boyle, personal communication January 31, 2017). A catholic mix of musical styles, often used in combination, results: jazz, classical tonality, modality, extended tonality, bi-tonality, serialism, atonality, and a fondness for musical quotation. Pupil and long-time colleague of Spedding, Rory Boyle, has argued that it is in Spedding’s film music that we can hear him at his most radical. His work is also marked by a strong sense of the dramatic, rhythmic dynamism and an adventurous approach to instrumental colour. The widely varying styles and levels of dissonance that result rarely jar however; Spedding’s skill is in seamless juxtaposition, combination and layering such that all seems of a piece. Along with *Weave Me a Rainbow*, his contemporaneous Films of Scotland scores for the industrial documentaries *The Heart of Scotland* and *The Big Mill* are prime examples (Henson, 1962 and 1963). They combine folk-like melodies, extended tonality, near-atonality and hints of jazz. His later score for *The Hand of Adam* (Grigor, 1975), about eighteenth-century Scottish architect Robert Adam, affectingly combines serialism with occasional ‘windows’ of classical tonality.

In *Weave Me a Rainbow*, a driving jazz style is very much at the forefront. This is reflected in the instrumentation of flute, clarinet, piano, vibraphone (with motor on), drum kit and double bass (played pizzicato). The specific rationale for the choice of jazz is unknown, but the precedent had already been set in both promotional and industrial film. Len Lye’s 1930s work for the GPO under Grierson’s auspices often employs trad jazz scoring, *A Colour Box* (1935) for example, and, probably most prescient, Bert Haanstra’s Academy Award winning industrial film about a glass factory, *Glas* (1958), has a strongly modern jazz-influenced soundtrack. Unlike in those films however, Spedding’s music uses the extended tonality of the jazz harmonies employed to slide easily into more dissonant and astringent textures that allude to modernist expression, aided by a subtle rhythmic shift from ‘swung’ triplets to ‘straight’ quavers. At other points the same technique is used but instead to move towards a more classical style,
chiefly led by the piano in a way reminiscent of Jacques Loussier’s use of J. S. Bach’s compositions as a base for jazz improvisation (Loussier’s innovative Trio had already released four LPs by 1962 so these may well have been a direct influence). The music that accompanies the titles sets up this ambiguity (Fig. 5): a fast walking bass line outlines a simple I-II-V-I progression in C# minor, with chord II altered to a secondary dominant D#7, a common jazz inflection. This simple four-bar harmonic progression repeats for most of the 40-second title sequence. However, the melodic material of the flute and clarinet clouds the progression with leaping chromatic dissonant tones reminiscent of eastern European klezmer music. The rhythms are simple crotchets and quavers, but the entry of the piano is heralded by their jaunty descending chromatic lines played with *notes inégales* (Fig. 5, bar 11). Though no score survives, it is reasonably safe to assume that any approximation of ‘swing’ is notated this way: Films of Scotland scores of this period were nearly all played by musicians from the Scottish Sinfonia conducted by Marcus Dods and there is an undoubted slight ‘stiffness’ to their version of swing. It is effective though because the instrumentation and general musical language signal it as an appropriate style. The ensuing piano music (Fig. 5, bars 12 – 18) has a baroque character in its melodic outline and reversion to quavers, and sets up a gentle bitonality in places (for example C# minor against the bass’s D# major outline at bar 14). It then concludes with a recurrence of the triplets preceding a brief modulation to C# major (the last beat of bar 20). The overall effect is upbeat, quirky and slightly mysterious and, when combined with Halas and Batchelor’s stylish but garishly ‘rough’ animated titles, encapsulates the whole tenor of the film to come.

The ‘experimental platform for presenting textiles’ will now be examined by focussing in detail on specific sections of the film that highlight the importance of music and ‘verse commentary’ as a means to showing a ‘refreshingly modern approach’ whilst also appealing to tradition.

IV

The verse commentary in the film may be described as a poetic approach that seeks as much to evoke feeling as to impart information. Although the verse form is used sparingly, its relative rarity gives it more impact. One such example is in the Of Wool and Scotland section (Sequence 5 but incorporated into Sequence 2 in the final cut) that shows traditional methods of hand-plucking wool in a rural Shetland setting. From 05:34 the commentary explains the unique soft quality of the Shetland sheep’s wool. It then compares this to other types of wool found around the world that ‘find their
way to Scotland’ for use in cloth manufacture. The tone of Henry Donald’s refined Scottish burr becomes wistful, the words savoured and slowly paced: ‘like camel hair from Turkistan; or the soft and lovely vicuna from Chile, and Peru. Like mohair from the Cape and Turkey; and the alpaca and the llama, and Tibetan Kashmir’. As the words are intoned, the soundtrack of sheep bleating gives way to Spedding’s quick and breezy, light ‘swung’ jazz in a generally major tonality with touches of the ‘straight’ baroque-like piano mentioned above. Drums excepted, the full ensemble is used and the vibraphone is prominent, leading the way through images of the sheep and shearsers to a single long close-up of a lace shawl, gently blowing in the breeze. The commentary now focuses on the shawls made by the Shetland crofters, their names ‘posses[ing] a magic’ (Grant, 1961, p. 12) and again, savoured and drawn out by Donald: ‘Rose of Sharon, Crown of Glory; Star of Bethlehem’. The treatment talks of the ‘verse find[ing] its rhythm in the sounds of names and place-names’ and of the ‘music in names’ that acts in ‘counterpoint’ to the shearing scenes: ‘let the sounds purr in the ear’ (pp. 12 – 13). The imagery is of timeless rural scenes and practices. The subject matter discussed reflects this but is then extrapolated to an exotic, international realm that is couched a little mysteriously, all the while accompanied by cool, upbeat jazzy music, the ‘classical’ couching of which exudes sophistication. The attempt to show the importance of age-old practices, but ones that are far from just parochial, is clear and entirely led by the ‘music’ of both words and score.

The section ends with a startling cut to an eerie, washed-out shot of the winter sun through some bare trees, the music concluding in typically jazz-like harmonic ambiguity, the oscillating vibraphone resounding. The commentary suggests: ‘colour is gifted by the sun, it’s great light a radiant source and origin’. An arresting close-up image of a
single blinking eye ensues as Donald comments that ‘like beauty, colour lies in the eye of the beholder. All nature’s colours are reproduced in wool from dyes perfected by colour chemistry’. And so the film switches back to the scientific examination of dyes and wool of Sequence 2, The Micro-Photography of Wool, with a series of surreal shots of brightly coloured dyes dripping into clear liquids filling the frame. The following 30 seconds of film is commentary-free. The music takes centre-stage beginning with a simple oscillating two-note flute motive, C-Db against the clarinet’s C joined by a near atonal 10-note descending piano arpeggio that mirrors the falling dyes. The dissonant, modernist-tinged music follows on from the commentary’s talk of ‘colour chemistry’, the appeal to science and modernity clear. However, it is then softened by a return to a jazzy modality alternating between G dorian and Bb aeolian (indicated by the changing key signatures from bar 6, Fig. 6) and with chords extended to include flattened 7th, 9th and 11th creating familiar jazz bitonalities. The common time and steady quavers are replaced by complex triple time measures, including embedded triplets and quasi-improvised virtuosic woodwind lines (bars 9 – 12). The clarinet acts as an intervallic binder between the opening dissonance and jazzy section with its accompanying movement in seconds, as does a rapid, dissonant chordal piano passage that leads convincingly to a return of the dissonance of the opening that accompanies a concluding animated section. The modernity and connections between both musics are highlighted, with mystery and familiarity juxtaposed and combined (Fig. 6).

This alternation between jazz and more modernist musical expression is a strong feature of the following Sequence. Sequence 3, Yarn Manufacture, is set within the mill environment (08:12 – 11:53) and details dyeing, carding (the initial making of threads from the wool) then spinning. Commentary is sparse with long sections of music and image alone. It employs the close-up, creatively-lit cinematography mentioned above throughout, exemplifying the Griersonian ‘poetry of the actual’ and the bringing of beauty to industrial processes. Occasional faces of the mill workers are seen through the yarn and steaming vats, their faces surreal in the lights. In keeping with the continually moving camera, fairly rapid editing and dynamism of the moving machines and bubbling dye liquids, the music runs at an extremely fast, bebop tempo (crotchet = 290) with the clarinet and vibraphone often leading with mellifluous and flowing melodies strongly reminiscent of ‘improvised’ jazz solos. The modernist passages feature a ponderous, serialist-inspired vibraphone melody, doubled two octaves lower on piano, that uses eleven tones of the chromatic scale (08:54, Fig. 7), and pounding
Colour is gifted by the
sun, its great light a
radiant source and origin.
Like beauty, colour lies in
the eye of the beholder.

All nature’s colours are reproduced in wool
from dyes perfected
by colour chemistry.

06:35
Figure 6: Transcription of Frank Spedding’s music for *Weave Me a Rainbow* Sequence 2, The Micro-Photography of Wool, from 06:35.
piano dissonances that flow out of the extended jazz harmonies. The rhythms alternate between ‘swing’ and classical ‘straightness’ as before. They often take on an overtly stiff and mechanical bent, changing in tempo in direct correspondence with the movement of the machines. The drum kit is featured in this section, its brush-driven rhythms often following the fast movement of the carding machines, whilst trills on woodwind and piano, along with flutter tonguing on the flute, allude to factory processes with their ‘mechanical’ oscillation of major and minor seconds. The final section of the sequence features the dynamism of the spinning machines with their wide arc of back and forth movement, introduced sonically by a highly dissonant strumming up and down the strings inside the piano (that sounds electronically treated towards its end).

The visual similarity between the internal workings of the piano and the complex vibrating lines of yarn and spinning bobbins is pinpointed in sound (Fig. 8).

As the strumming fades the commentary describes how in order ‘to give wool strength the yarn has to be drawn out, twisted and wound. Wool gets its muscles by binding the fibres tightly together, making each length of thread narrower; narrower and stronger’. With the rest of the ensemble silent, a free and fast, virtuosic drum solo ensues (10:58 – 11:49) over various shots alternating between rapidly wavering threads from various close-up perspectives and vividly-coloured spinning bobbins, the camera zooming out occasionally to show a little more context. The treatment asks for the music to change to march tempo, ‘with military precision’ (Grant, 1961, p. 9) and Spedding employs sharp bass drum ‘stabs’ and all manner of syncopated rim-shots, flams and rolls played with hard sticks on a tight snare, strongly suggestive of the growing strength of the yarn and ‘military precision’ of the process. The shooting script instructs the solo to build to a crescendo ‘as colour potentially grows’ (McConnell, 1961, p. 5) and the commentary begins to talk about the colours depicted as a ‘paintbox’ of
the designer ‘who now takes over’. After a brief return of the full ensemble, the film moves on to the pictorial rural calm of the Design Sequence 4 described above.

The latter half of the Design Sequence (from 16:16) returns to the mill but this time to concentrate on weaving. It employs similar audio-visual tactics as before though begins with a sudden brief focus on the ethereal sound and image of threads being spun off bobbins for weaving, the treatment instructing a ‘plunge from a two-fold consideration of design theory into the practical workings of . . . the power loom. Make a crash entrance by reproducing in realistic sound the shock motif of the motion of the weft projectile’ (Grant, 1961, p. 11). The commentary states: ‘colours are chosen, patterns decided. The production of all kinds of cloth is in full swing’ and what follows
is one of the more extraordinary sequences in the film where the correspondence between the music and visual depictions is so close that the two almost become one. Before falling silent, Donald informs the viewer they are to see ‘warp lines first’ (as in the warp and weft of the weave) heralding a completely abstracted and mesmerising shot of coloured threads from below that fills the frame, the brightly-coloured yarn vibrating and oscillating. Gradually the camera pans and zooms out revealing the yarn being drawn onto the revolving wheel of the ‘warping’ machine in which ‘the correct colour sequences of yarn are wound . . . to form the entire length of a piece of cloth’ (McConnell, 1961, p. 6) before being sent to the loom. This is followed by regular alternating close-ups of the wheel turning and threads being drawn, with one arresting pull-focus shot of a worker seen through the threads from below. All through this sequence, the music, which seems to evolve directly from the oscillating location sound of the weft projectile, consists of a simple two-note repeating flute figure, Eb-F, strongly reminiscent of the earlier flute minor second figure in Sequence 2 (Fig. 6, bars 1 – 4) but now using flutter tongue articulation. This is doubled by the vibrating sound of the vibraphone played tremolando with the motor on, whilst a bass flute intones a low F (Fig. 9). This short phrase is repeated sixteen times. There is a literal correspondence between the close musical interval of a second and the parallel closeness of the threads. The oscillating tones of the vibraphone are similarly paralleled by the vibrations of the yarn which are almost magically haloed by the creative lighting. The repetition matches the mesmerizing quality of the photography, the mechanical nature of the yarn being drawn, the wheel turning, and the deliberately mechanistically regular editing. The colours of the imagery are ‘matched’ by the musical ‘colour’ of the orchestration that in turn mirrors the detailed arrangement and subtle movement of the threads.

The yarn is now ready for weaving and a kind of audio-visual culmination ensues (from 17:38) with the closest rhythmic correspondences of the film drawn between the regular movement of the loom mechanisms and a simpler, downbeat blues-inflected groove. The music, led by a catchy if moody vibraphone then flute melody in F minor, is underpinned by a walking bass line outlining a relatively simple and familiar chord sequence, repeated twice. It is strongly reminiscent of a ‘cool’ 1960s jazz-blues film theme, though maintains its vaguely mechanical feel via slightly awkward syncopated piano chords. The tempo, led by the visual suggestion of machine rhythms, is much more stately than before (crotchet=112), allowing extended and repetitive crunching piano dissonances to have great force, tension and grit. The groove opens at 17:38
with a syncopated and vigorous seven-bar solo drum break that almost lurches into the ‘two beats to the bar’ feel of this dirge-like march (from 17:52, Fig. 10), the heart of which lies in a repeated and highly pregnant dominant C7b9 chord that on its repeat closely follows a chain clicking regularly round a cog as the visual focus shifts to a loom’s driver mechanism (18:12, Fig. 10, bar 10). The dissonance points to the blues and also, in its repetition, to the unfeelingly mechanical. This shift is the shooting script’s instruction for a tempo change ‘to an architectonic precision — warp and weft always at 90°. The march, the march of colour and pattern’ (McConnell, 1961, p. 7). Spedding’s faithful realization of McConnell’s instruction is a highpoint of the whole film, the aesthetic pleasure generated, paramount.

The creative experimentation in Weave Me a Rainbow shows a strong freedom of expression and capacity to immerse the audience into the world of the mill and ultimately that of wool, yarn and cloth — the cinematography in all the mill sequences uses close-up and mid-shots relentlessly, ultra-vivid lighting and surreal angles. This serves to deepen what Patrick Russell describes as industrial documentary’s concern during the post-war era for recapturing ‘for adult eyes and ears the excitement a young child might feel when taken inside a factory whose vivid sights and sounds envelop and overwhelm’ (Russell, 2010, p. 35). At the same time, the creative audio-visual strategy also still fulfils the promotional purpose championed by the likes of Hans Juda and his notions of creative Britain as a nation of conservative adventurers, and of an art-industry alliance. Factory weaving had never looked or sounded so ‘cool’ and ‘happening’, the fabrics more colourful, desirable and trendily modern; but with the practices that led to their creation ultimately shown to be rooted in time-honoured traditions, designs
and with an emphasis on quality. The NASWM and the Films of Scotland must have been delighted: Scottish woollen textiles could compete with artificial fabrics, employ equally scientific methods in their production and development of new lines, whilst drawing deep on the age-old rural basis of both the very development of the craft and its ultimately natural, and thus superior, basis.
SOUNDINGS

[Vib.]

[Pno.]

[Db.]

[Dr.]
As Free Cinema documentary filmmaker Karel Reisz pointedly said in 1958, for all their polished achievements, filmmakers responsible for work such as *Weave Me a Rainbow* were little more than ‘poets making a living in the advertising industry discuss[ing] their
advertiser’s copy as [if it were] poetry’ (Russell and Taylor, 2010, p. 9). Even Laurence Henson, McConnell’s fellow director at Templar Film Studios, conceded that ‘too many of our films are flawed because they go to pieces selling something’ and that the need to include ‘qualifying passages [in The Big Mill] . . . weakened the thing as a dramatic piece’ (Donald, 1964, p. 41). It is hard to argue with either and no amount of artistry, either visual or sonic, makes up for the at best, ‘qualifying’, and at worst, rather crass ending to Weave Me a Rainbow. Its play on national stereotypes, sexist portrayal of women and somewhat empty appeal to trendiness, jars considerably by contemporary standards. Yet as McConnell points out about the film:

I was given the chance to do the thing I wanted with colour and form. I had freedom . . . but [f]reedom is a thing that has got rules to work by, and the rules that I was given were that I was to show wool in the best possible way. To show that it is born and not made. But as it happened, I had the opportunity to do a thing that pleased me as a filmmaker, visually, in certain sequences [my italics] (Donald, 1964, p. 41).

It is of course the music and to a lesser extent, the commentary, in combination with the photography that makes those sequences so powerful and aesthetically pleasing. Indeed, compared to say Cashmere is Scottish (Goddman, 1973) that has a similar purpose and tenor and contains some superficially similar mill photography, Weave Me a Rainbow is in a different league of artistic prowess. The bland musical accompaniment and incessant factual and dull commentary of Cashmere is Scottish cannot hope to match the ingenuity of Spedding’s score and Grant’s evocative and restrained commentary, just as the flat lighting and cursory nods to arty photography cannot match McConnell and Coull’s vivid, skilful and arresting depictions. So whilst Weave Me a Rainbow is unconcerned with specific social matters or the problems of the industrial workplace, resulting in a ‘failure to accommodate analysis and contradiction’ (McArthur, 1982, p. 62), it offers instead, what Grierson termed the potential ‘magic’ (1968, p. 5) of documentary representation as a means of ‘illumination and persuasion’.

By engaging the audience in a ‘sensual journey’ of music and image, woollen textile production is made strange and beautiful and promoted as drawing on the strengths of Scotland’s national past, whilst all the while looking to the future.

However, as with advertising of even the greatest integrity, it is largely a fantasy world that is ‘depicted’ — textile mills, whilst fascinating and dynamic workplaces, do not look as good as this, they do not have engaging musical accompaniment and in
fact, by the early 1960s, were in serious decline, undermining any sense of ‘Scotland on the move’. Mills were workplaces of deafening noise, danger, long shifts, low pay and little job security. What is left of significance in the film is therefore the art, the creative promotional aspects that exemplify Juda’s notion of the conservatively adventurous British approach to mid-late twentieth-century modernity. In certain sections of Weave Me a Rainbow, the aesthetically driven audiovisual evocations of industrial processes that were a mainstay of post-war documentary, reach a creative peak in McConnell and Spedding’s collaboration. The correspondences drawn between music, verse commentary and cinematography have the capacity to affect broad feelings about modernity and tradition as well as making highly detailed subliminal and overt connections between musical and visual detail: musical and visual ‘colour’ almost become one. ‘Export or die’ was Juda’s clarion call in The Ambassador, surely understood too by the NASWM’s concern to counter the onslaught of artificial fibres and overseas competition by sponsoring the film. In the end, even with the partial death of the British woollen textile industry since, their openness to such an experimental and artistically modern approach to promotion has happily left behind a film that endures, representing very well Juda’s belief in the arts as a ‘tough living force in our world’.
Endnotes

1 Further examples are July 1954’s ‘Ambassador from Scotland’ feature: ‘In its local distribution throughout the country and in its standards of quality, the Scottish woollen industry might be seen to cling to tradition. That there is nothing old-fashioned about it, however, is demonstrated by the continual research carried out (p. 71)’; and the same titled November 1955 edition: ‘If the River Tweed is eternal, tweed is eternal, too. . . . However, the fabric is no more at a standstill than is the stream — and that goes for the Scottish textile industry as a whole’ (p. 72).

2 Archive research for this chapter was carried out at: The National Library of Scotland (NLS) Moving Image Archive at Kelvin Hall, Glasgow; the John Grierson and Forsyth Hardy archives at the University of Stirling (G and H codes respectively in the bibliography); and the Archive of Art and Design, Victoria & Albert Museum, London (AAD).

3 Robert Flaherty's *Industrial Britain*, made in 1931 for the Empire Marketing Board (a body that Grierson led), remains a benchmark for both its poetic and naturalistic approach to photography of industrial scenery. Grierson greatly admired Flaherty’s flare and capacity to transform promotion into art via his photography and the operation of what Dziga Vertov called the ‘camera-eye’.

4 The exact filming location of *Weave Me a Rainbow* is unknown, but the photograph strongly suggests a mill in the Hillfoots region. The Hillfoots are the villages and small towns that lie at the base of the southern scarp face of the Ochil Hills in Stirlingshire and Clackmannanshire, central Scotland. Many owe their development to eighteenth and nineteenth century textile mills driven by waterpower derived from fast flowing streams that drop down from the hills.

5 The treatment is an anonymous Films of Scotland Committee document, but *Scotland on Screen* (1965) publicity material cites Grant as author of both the film treatment and commentary.

6 The document is signed by the Committee and Templar Films, but McConnell states the ‘shooting script would follow my visual “recce” and talking to wool experts and designers’ (personal communication, October 27, 2017).

7 This final section was filmed in May 1968 and replaced the original ‘international parade of tweed’ (*Scotland on Screen*, 1965, p. 105) when additional shared funding of £2000 from the Central Office of Information (COI) and NASWM became available (*Films of Scotland Committee*, 1968, p. 1). McConnell states that
'the earlier Templar Films’ version is the original that won the prizes. The ending of this original consisted of various shots in European capitals of people wearing Border tweeds, and library shots of the Far East where lightweight tweeds would be suitable. Motivation for redoing the ending was the availability of new funding’ (personal communication, October 27, 2017). This appears to be related to rather heated exchanges between Forsyth Hardy and John Bewg, Director of the Films Division at the COI, in which Hardy accuses the COI of being tight-fisted and London-centric (Films of Scotland, 1967b, p. 4).

8 The house is in Langholm in the Scottish borders, once home to a thriving woollen milling trade that still employs people in the town today. The high street chain, The Edinburgh Woollen Mill is based in Langholm.

9 Manifest not only in the work of composers such as Peter Maxwell Davies and his exploration of music of the middle ages but also in popular music. After its own tabula rasa of the brash new rock and roll, groups like The Beatles, and psychedelia generally, became steeped in nostalgia for music hall, childhood and authors such as Lewis Carroll, for all its otherworldly innovative studio experimentations.

10 The exact manner of notation cannot be known but, despite the music often sounding quite improvised, Boyle, whose knowledge of Spedding’s concert music is probably unsurpassed, suggests that he ‘was incredibly thorough with his scores and I would think it highly unlikely that he would not write out everything in his scores even if they sound improvisatory . . . I don’t ever remember seeing any aleatoric techniques (despite him being an admirer of Lutoslawski)’ (personal communication, October 6, 2017).

11 Apart from the biting flattened ninth, Db, on the dominant C7 in the piano, this is mainly characterized in the flute melody by the use of the flattened fifth, Cb, over the tonic F minor and the sharpened ninth, E, over Db major