Film as Fabric:
Connecting textile practice and experimental filmmaking through expanded cinema performance

M Stark

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Mary Stark

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Abstract

This practice based study examined connections between textile practice and experimental filmmaking as evidence of deeper repressed narratives. The research was informed by the long association of domestic crafts with women, as well as feminist critique of contextualisation of experimental filmmaking as from narrow and misplaced perspectives. Historical analysis was combined with tests in the form of studio-based practice and expanded cinema performance. This led to identifying the terminology of analogue film editing as evidence of the largely unrecognised labour of women who worked in the cutting rooms of early cinema, whose practice was seen as menial due to it being considered similar to cutting and stitching cloth.

Underpinned by feminist and post-materialist discourse, the methodology of *crafting* expanded cinema involved entwining digital and analogue technologies to produce a new expanded cinema performance *Film as Fabric*. This live work developed through numerous iterations documented using video, digital photography and sound recording. The embroidery practice of sampling enabled examination of a seminal expanded cinema performance that featured stitch, *Reel Time* (1973) by Annabel Nicolson. The process of combining textile practice and experimental filmmaking through expanded cinema performance was informed by Richard Sennett's 'domain shift' theory. It resulted in hybrid tools and the specific practice of creating moving images and optical sounds from fabric and stitch patterns and editing them into loops with a live method informed by dressmaking.

Driven by ideas of the body as a living archive and performance as a mode of memory, the live work became a way of analysing and remembering *Reel Time*, as well as a way for repressed analogue filmmaking practices associated with women's hidden labour to re-emerge and be celebrated. Documentation of *Film as Fabric* became a record release, a website and this thesis offering a divergent historical narrative and a field of contemporary practice to support future interdisciplinary exchange.

Website: https://marystark.wixsite.com/filmasfabric
A copy of Industrial Folklore Tapes Vol IV: Film as Fabric accompanies hard copies of this thesis

Acknowledgements

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This research has been richly sustained by all at Slacks Farm, but especially my ever-deepening love for David Chatton Barker and our beautiful son Rowan.

I thank Annabel Nicolson for making Reel Time, which largely inspired this research, and for supporting my interest in her work.

To spur on anyone in a similar position, this project has been carried out on a part-time basis without regular funding. Do not give up.

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Introduction

This practice-based study examines relationships between textile practice and experimental filmmaking, based on the idea that their shared materiality, terminology, techniques and apparatus indicate they are more deeply connected than they may at first appear. The investigation seeks to analyse existing relationships and create new links between the fields through my studio practice and the development of an expanded cinema performance *Film as Fabric*, which takes the British filmmaker Annabel Nicolson's *Reel Time* (1973) as a point of departure.

In her seminal live work, Nicolson punctured a huge loop of 16mm film with her unthreaded sewing machine needle until it was so damaged it could no longer be projected. This study builds on Nicolson's work with the sewing machine and the film projector and her live handling of photochemical film as fabric. Numerous expanded cinema performances took place in former cotton mills in Manchester, which allowed autobiographical and site-specific narratives to emerge. The project draws upon my artistic background in embroidery[3] and my family history, which includes numerous expert needlewomen and workers in the textile industry in north west England[4].

My post-materialist (Doing, 2017b, p. 88) intermedia (Walley, 2011a, p. 27) multi-mode approach (Nelson, 2013, p. 26) has resulted in 1) an expanded cinema performance *Film as Fabric*, 2) this written thesis, and 3) performance documentation, specifically a limited-edition vinyl record release and a website with videos, photographs, sound recordings, drawings and written notes https://marystark.wixsite.com/filmasfabric. It must be stressed that the richest way of engaging with the research is as live performance. If this is not possible, links to digital content on the website throughout the thesis demonstrate specific aspects, such as sound. Photographs of two iterations are now provided, plus a short description of the performance[5]:

[3] In 2006 I graduated from BA (Hons) Embroidery at Manchester Metropolitan University with first class honours.

[4] My paternal grandfather was a film projectionist in north-east England in 1939

[5] To give a sense of the final live work, but also to show how each iteration had slight variations, photographs are from two separate performances in October 2016 Radio Revolten International Festival of Radio Art and Full of Noises at Islington Mill

Short description of *Film as Fabric*[6]

Figure 1.*Film as Fabric*. Radio Revolten International Festival of Radio Art, 2016 [online]

Film as Fabric is an expanded cinema performance showing relationships between textile practice and experimental filmmaking. It developed through numerous iterations from 2013-2017, which were devised, and often performed, in former cotton mills in Manchester, the birthplace of the Industrial Revolution. *Film as Fabric* showed analogue film as fabric and stitching as editing. It was informed by the process of making a garment: 16mm film was cut with dressmaking scissors; stitched; spliced into loops; projected; measured; and worn on the body. Amongst the mechanical noise of a sewing machine and multiple film projectors, fabric and stitch patterns transformed into moving images and optical sound[7]. The performance summoned absent voices, obsolete industries and Stark's personal history. *Film as Fabric* took Annabel Nicolson's *Reel Time* as a point of departure and aimed to recognise women's labour, in particular their work in the cutting rooms of early cinema.

[6] See chapter five for a longer description and list of actions

[7] Optical sound involves areas of light and dark in the soundtrack area of the filmstrip transforming into sound when film is projected. The soundtrack area runs the length of the filmstrip next to the frames, along the edge that does not have sprocket holes.

Film as Fabric at Radio Revolten International Festival of Radio Art

Figure 2.Tying string on which to hang film between two speakers. Radio Revolten International Festival of Radio Art, 2016 [online]

Figure 3.Singing a work song sung by women in spinning sheds The Doffing Mistress. Radio Revolten International Festival of Radio Art, 2016 [online]

Figure 4.Unwinding a reel of film of fabric patterns. Radio Revolten International Festival of Radio Art, 2016 [online]

Figure 5.Cutting 16mm film with dressmaking scissors. Radio Revolten International Festival of Radio Art, 2016 [online]

Figure 6.Stitching a rhythm on clear leader. Radio Revolten International Festival of Radio Art, 2016 [online]

Figure 7.Splicing whilst wearing film round my neck. Radio Revolten International Festival of Radio Art, 2016 [online]

Film as Fabric at Full of Noises, Islington Mill

Figure 8.Adjusting sound levels. John Lynch, 2016

Figure 9.Stitching a rhythm. John Lynch, 2016

Figure 10.Holding a film loop. John Lynch, 2016

Figure 11.Cutting film to a body measurement of a member of the audience. John Lynch, 2016

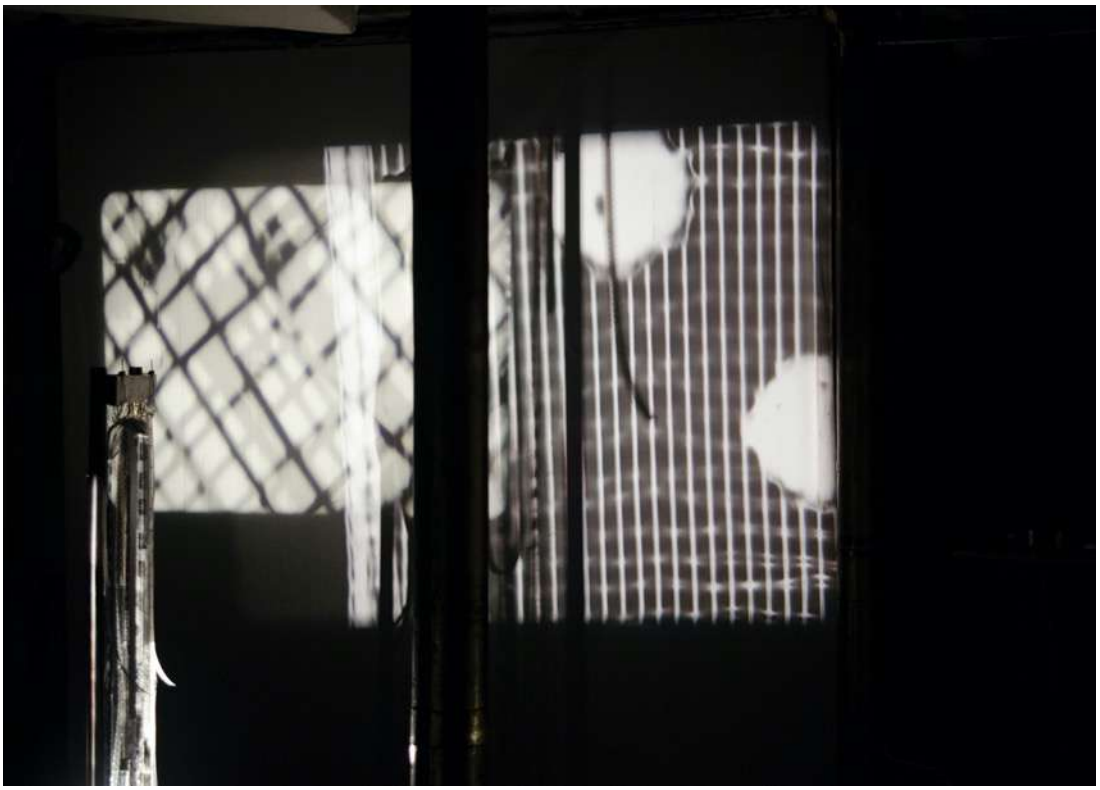


Figure 12.Projections of film loops made from photograms of patterned lace. John Lynch, 2016

Figure 13.Measuring a member of the audience with film. John Lynch, 2016

Figure 14.Multiple projectors whirring in a room formerly used for spinning cotton thread. John Lynch, 2016

Figure 15.The shadow of the scissors just before cutting film loops as they were projected. John Lynch, 2016

Rationale

Figure 16.Photographic documentation of *Reel Time.* Annabel Nicolson, 1973

Since 2012, the study has examined the idea that the materiality of photochemical film offers a tangible visual equivalent to that of fabric[8]. In 2010, after handling a reel of film for the first time, I observed similarities between the shared materiality, terminology and apparatus of textile practice and experimental filmmaking. My initial hunch that they were deeply linked was supported by learning about Nicolson's *Reel Time*, and then reading feminist critique arguing Nicolson's work has often been historically positioned in a reductive way (Reynolds, 2009, p. 11), as well as finding that the work had not yet been the subject of a practice based analysis. The British experimental filmmaker Lis Rhodes' call for female artists to draw upon their experiences to reconstruct divergent contexts for their work (Rhodes, 1979, p. 119) was also a key text from the early stages of the study. In response, I have created an expanded cinema performance with the intention of establishing links between textile practice and experimental filmmaking, analysing and building upon *Reel Time*, as well as presenting a new interdisciplinary narrative that re-contextualises existing artworks and supports future exchange between the fields.

[8] My concern with similarities between editing and stitching first originated in 2006. From then my practice-based research broadly focused on investigating relationships between textile practice, photography and the moving image. For further details see practice-based research 2006-2012 in appendix p.206

Cutting/Editing

As chapter one will discuss, the hypothesis gained additional significance through the knowledge that many women worked as film cutters in early cinema. Up to the late 1920s, women cut and joined thousands of feet of film by hand, and their work was seen as menial because of its similarity to stitching cloth. Furthermore, associations with stitch have been used to distance their work from male-dominated canons of film editing (Murch, 2011, pp. 75–76). By the 1930s, editing was recognised as important in the film production process and was therefore a job for men. An archival film shows the different values given to the gendered practices of cutting and editing: "girl cutters work on the negative film but the actual cutting of the film is the job of the editors, masters of their craft who know exactly what to eliminate and what to keep in" (*1930s Film Studio, Film Processing and Editing, Cutting Room, 35mm*, no date, 31 seconds).

Dominant historical narratives show advances in editing as following a similar pattern. Male directors are celebrated, such as Dziga Vertov, D.W Griffith and Jean Luc Godard, but the lesser-known female film editors, who they worked with closely, are often overlooked. These women demonstrate how some cutters went on to have successful careers as editors, bringing the clear distinctions between the two roles into further question. Vertov's wife Elizaveta Svilova edited *Man with a Movie Camera*; Rose Smith edited eleven of Griffith's film including *Intolerance*; and Agnès Guillemot edited the majority of Godard's 1960s films (Wright, 2009, p. 8).

The lack of recognition given to women's film editing has been discussed by the feminist film scholar Julia Wright who states: "Female film editors undergo a 'double invisibility': already invisible to film history by virtue of their "invisible art," women are then edited out of books that intend to bring visibility to the editing profession." (2009, pp. 8–9) Informed by Wright's theory and the way that associations with stitch have been used to devalue women's work as cutters, *Film as Fabric* now engages textile practice as feminist critique in expanded cinema performance to highlight and recognise women's labour, particularly their contribution to histories of editing. To clarify, I refer to the work of 'cutters' or 'women working in the cutting rooms of early cinema' because they were not called editors at the time, but I maintain the importance of recognising their work within histories of film editing.

Aims and Objectives

Figure 17.Screenshot of Elizaveta Svilova working at the edit bench in *Man with a Movie Camera* (1929). Mary Stark, 2018

Research question:

How are textile practice and experimental filmmaking already connected? How might they be further linked through expanded cinema performance?

Research aim:

Through expanded cinema performance show existing relationships and create new links between textile practice and experimental filmmaking

Objectives:

- Analyse the shared materiality, terminology and technology of textile practice and filmmaking through studio-based practice and expanded cinema performance
- Build on Nicolson's *Reel Time* and recognise women's contribution to histories of film editing by creating an expanded cinema performance that demonstrates how photochemical film is similar to fabric and film editing to stitching a garment
- Establish contextual overlaps between the fields as a divergent interdisciplinary narrative to re-contextualise existing artworks and support future exchange

Methodology

Figure 18.Scan of stitched photocopy. Mary Stark, 2012

My approach has been based upon the British performing arts theorist Robin Nelson's multi-mode model for practice as research, which positions practice-based methods at the core and embraces tacit, embodied and performative knowledge, producing evidence through different forms of knowing (Nelson, 2013, p. 38). The study involves working with textile practice in an expanded cinema performance context, applying two distinct disciplines to one other as a form of research in action. In particular, my background in textile practice has offered new ways to approach and produce expanded cinema. I have combined the materials, terminology, techniques, and apparatus of the two fields in three stages: 1) through studio practice; 2) expanded cinema performance; and 3) performance documentation.

The study's aim of combining two disciplines to form new relationships is informed by film editing theory, in particular the idea of editing as connecting, joining, assembling. The British film theorist Janet Harbord discusses the terms 'editing' and the French expression 'montage', which means 'assembly'. She asks how thinking of editing as a process of assembly might lead to a focus on joining rather than cutting, and in turn to new forms of cinema: "To think differently about editing is then to re-conceptualise film and its fundamental components. Editing as assemblage, a bringing together of parts into unforeseen relations, requires us to think about film's spatial manipulations, as a fabric

that threads itself across space linking atomised images and producing new lines of connection" (Harbord, 2007, pp. 79-80).

The visibility of the join – the connection between two frames - is crucial to one of the earliest editing techniques: the substitution splice. These trick edits involved a sudden intense visual transformation enacted through a cut or a series of cuts to create appearance, disappearance or substitution of something on screen. They have been noted as offering: "a way for seemingly distant ideas and images to be joined in easy association, if only for a moment. But this momentary instability and disruption offers the potential for new ideas to be formed and hidden meanings to be revealed"(Moen, 2013, p. 965). I now understand *Film as Fabric* as functioning like a performed 'substitution splice', as a live visible audible tangible blurring of textile practice and experimental filmmaking.

Figure 19.In my studio space at the Liaison of Independent Filmmakers of Toronto (LIFT). Renata Mohamed, 2014

The research process is also informed by Richard Sennett's idea of the domain shift, which involves, "a tool initially used for one purpose being applied to another task, or the principle of one guiding practice applied to another activity" (Sennett, 2009, pp. 123–129). By stitching film in *Reel Time* Nicolson perfectly demonstrated Sennett's theory. As will be discussed in chapter four, the domain shift has been valuable in this study, particularly in the first stage, which involved establishing a studio-based practice as a way to analyse the links between textile practice and experimental filmmaking, as well as

undertaking workshops and artist residencies[9]. This led to the creation of hybrid tools and performed gestures, such as wearing loops of film round my neck. It also resulted in devising direct and cameraless techniques to transform machine stitch and patterned lace ribbons into moving images and optical sounds on 16mm film, which I call 'stitched rhythms' and 'pitched patterns'[10]. Stitched rhythms are made by puncturing and stitching clear film leader with the unthreaded and threaded sewing machine needle. Pitched patterns are created from photograms of patterned lace ribbons.

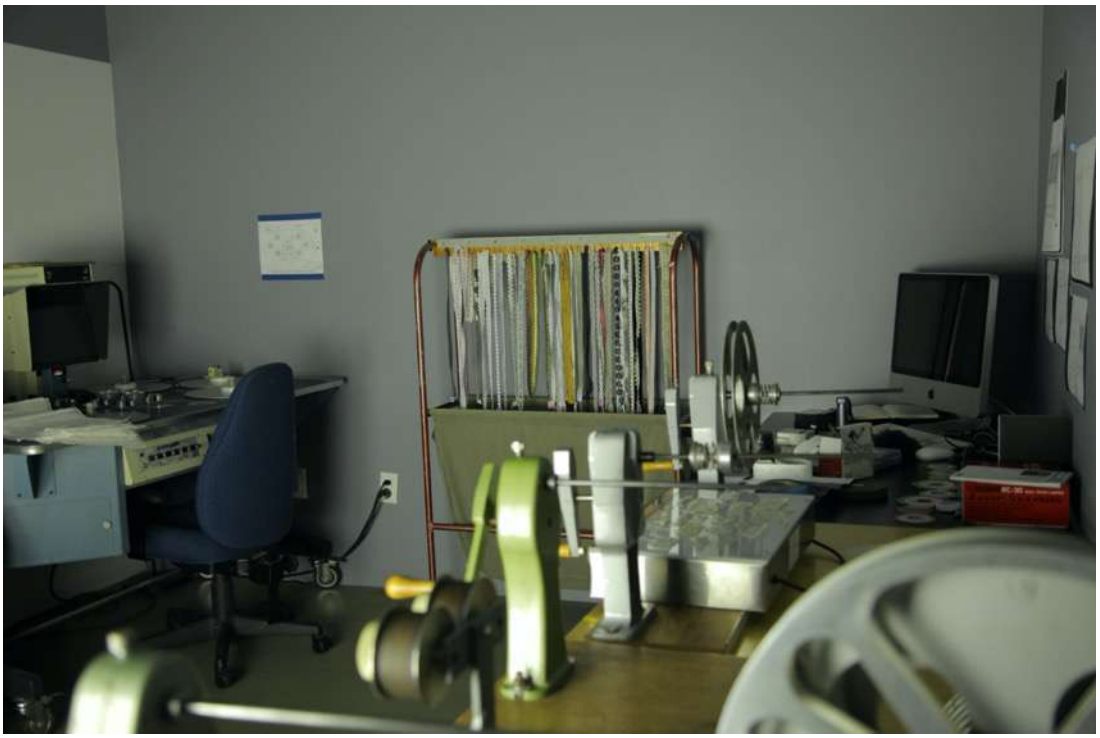


Figure 20.My studio at LIFT after hanging lace ribbons on the film trim bin. Mary Stark, 2014

The second stage of the research examined how to present the results of the first stage as expanded cinema performance taking Nicolson's *Reel Time* as a point of departure. This stage focused on demonstrating how textile practice offers ways to approach and produce expanded cinema performance. The embroidery technique of sampling, which is a way of copying and storing embroidery stitches to create embroidered designs, informed my method of analysing *Reel Time*. I developed the central aspects of stitching film and bringing the sewing machine and the film projector together, as well as 'sampling' other peripheral elements, identifying, closely analysing and building on them in *Film as Fabric*.

[9] I took part in a workshop Optical Sound and Expanded Cinema at N.o.w.here led by Guy Sherwin and Lynn Loo, as well as artist residencies at La Escocesa Studios in Barcelona in 2013 and the Liaison of Independent Filmmakers of Toronto (LIFT) in 2014

[10] For examples go to https://marystark.wixsite.com/filmasfabric/optical-sound

Figure 21.A stitched rhythm on white leader. Mary Stark, 2014

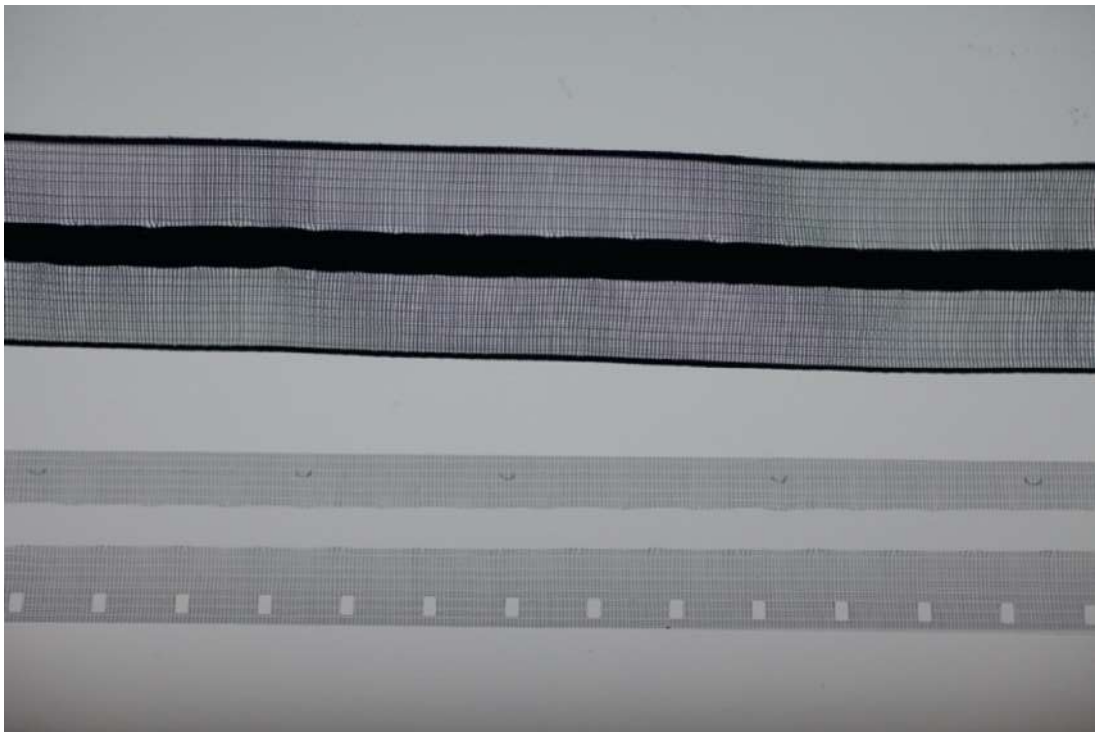


Figure 22.A 'pitched pattern' made by exposing organza fine lace ribbon onto black and white 16mm film. Mary Stark, 2014

The third stage then focused on organising and analysing the data created from the first two stages to formulate conclusions, which take the form of the expanded cinema performance, as well as a record release, a website and this thesis, which stakes out an interdisciplinary historical narrative and a contemporary field of practice. Numerous public iterations were documented digitally, reflected upon through studio practice and then re-performed.

Film as Fabric deliberately highlights and celebrates the materiality of photochemical film, but uses digital photography, video and sound recording to document and reflect on performances. Repeated loops have been created between seemingly separate disciplines, live performance and documentation, digital and analogue technologies. These interlocking cycles are grounded by my personal history and location in the north-west of England. They formed a methodology I term *crafting* expanded cinema performance, which refers to the ongoing act of refining an expanded cinema performance through numerous iterations and the intention of engaging fabric and stitch as feminist critique.

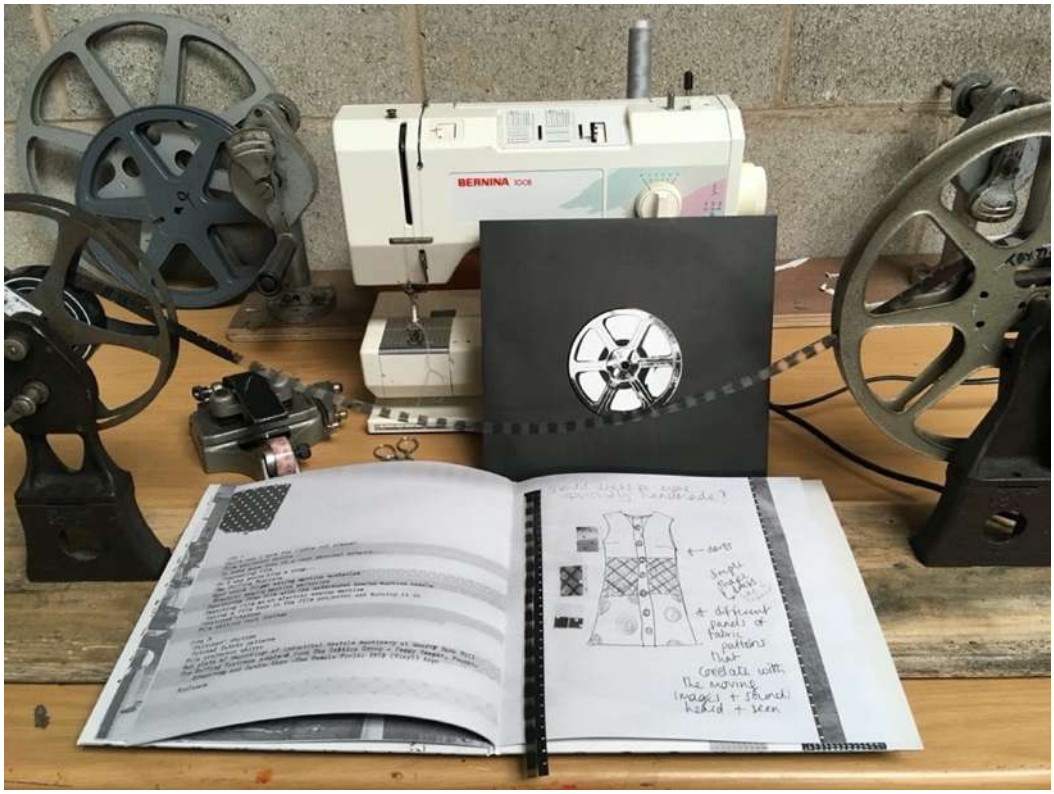


Figure 23.*Industrial Folklore Tapes Vol. III: Film as Fabric* limited edition 10" vinyl record. Mary Stark, 2018

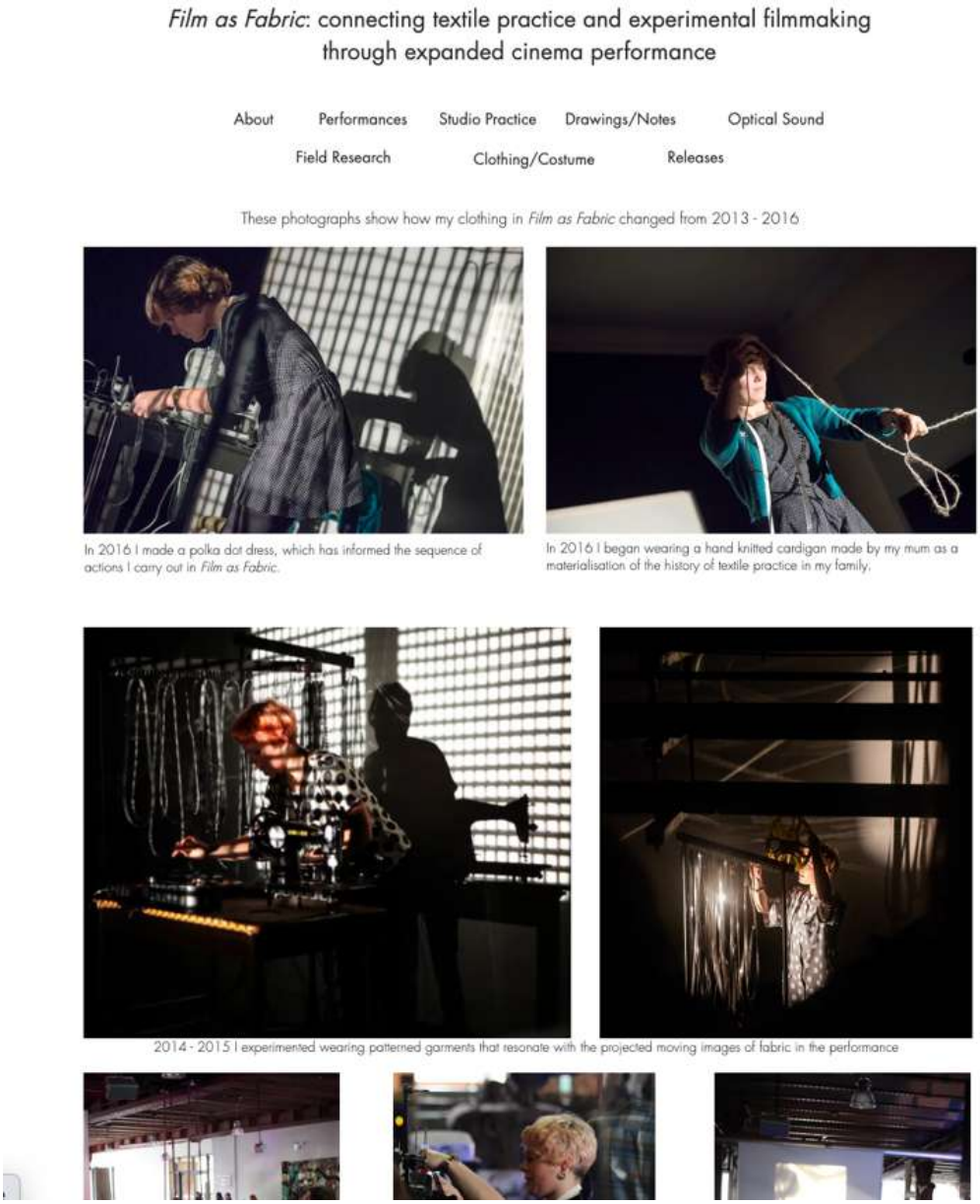


Figure 24. Screen shot of the website https://marystark.wixsite.com/filmasfabric/. Mary Stark, 2019

Context

To clarify, I refer to the wider field of experimental filmmaking within which the specific practice of expanded cinema is situated. Expanded cinema developed the filmmaker Peter Gidal's politically defined theory of structural/materialist experimental filmmaking. From the late 1960s, practice aligned with this genre aimed to reveal the process, apparatus and signs of physical contact in film production as a statement of autonomy and resistance to industrial practice, disrupting "a repressive ideological structure" (Gidal, 1976: online) represented by the illusory fictional narratives of commercial cinema[11].

Structural/materialism was established largely through single screen films before developing into expanded cinema[12], which moved towards performative models of making and showing films. Expanded cinema performances are live works underpinned by political motives that aim to re-position the spectator as an active creator of meaning. The artist William Raban explains: "Active participation from the audience is a radical if not subversive strategy in a commodity culture where passive consumption is the norm" (Raban, 2011, p. 100). In the UK, artists associated with the London Filmmaker's Co-op[13], not limited to but including Annabel Nicolson, Malcolm Le Grice, Guy Sherwin, William Raban, Lis Rhodes and Gill Eatherley, used methods in expanded cinema performance which often involved their bodies or objects interacting with film projection.

More recently a return to concerns with material-specificity has led to an emergent field of post-materialist expanded cinema (Walley, 2011b; Doing, 2017b; Knowles, 2017a). This is driven by analogue film's shift from a 'dominant' to a 'residual' cultural form, which politically charges the obsolete materials, apparatus and techniques in a new way

[11] Gidal defined structural/materialist filmmaking, developing the theory and practice of 'structural filmmaking', which in the late 1960s was defined by the American avant-garde film historian P.Adams Sitney as being characterized by specific processes, "fixed camera position, the flicker effect, loop printing and rephotography off the screen" (Sitney, 1969). Gidal expanded Sitney's idea to include the importance of the, "assertion of film as material" (Gidal, 1976: online).

[12] The term came into use in America in the mid-1960s in the context of multimedia performances by Stan Vanderbeek and Carolee Schneeman.

[13] The LFMC was established in 1966 and provided a film workshop, cinema space and distribution office at the heart of the UK's experimental film culture until 1999 when it merged with London Video Arts to form LUX.

(Beugnet and Knowles, 2013, p. 26). Post-materialist practice is also characterised by the re-emergence of narrative meaning. This is important because it situates the subjective position of the artist as central to the work, something that does not align with Gidal's theory which stated: "films that end up being adequate documentaries about the artist (subject's) concerns transparently posit themselves against anti-illusionist cinema" (Gidal, 1976: online).

The introduction of narrative in expanded cinema distinguishes new practice and affirms that it is not a simple repetition of past concerns. But foregrounding the artist and their body as central can be understood as having origins in past practice, such as Nicolson's *Reel Time*, which as this study shows, had subtle autobiographical and site-specific elements. According to feminist criticism, the reason why these aspects have been largely overlooked is due to neat visions of experimental film having been written from narrow misplaced perspectives, which leave marginalised histories unacknowledged, and categorise works in terms of their similarities rather than their differences (Rhodes, 1979, p. 119; Hatfield, 2006, p. 187; Blaetz, 2007, p. 154; Reynolds, 2009, p. 11, 2012, p. 52).

My examination of the relationships between textile practice and experimental filmmaking through the use of stitch in expanded cinema re-contextualises *Reel Time*. I draw upon the positioning of domestic craft as feminist critique in fine art because the process of making, actions, gestures and interaction with materials and mechanisms in the performance all form a method which seeks to interrogate the hidden labour of women, with particular reference to their work in the cutting rooms of early cinema.

Gidal referred to the "unseen splice" as key in establishing a natural flow in a film, with its invisibility hiding the process of editing and repressing, "the material relations specific to the film process" (Gidal, 1976: online). This study links Gidal's idea to the theory raised earlier in this chapter that women's work in the cutting rooms of early cinema has undergone 'double invisibility' (Wright, 2009, pp. 8–9). I develop this idea showing how their work is now further concealed due to the obsolescence of analogue film editing, as well as how aspects of their practice are now re-surfacing, as artists use their bodies as a resource in lieu of machinery.

Reel Time can be read as Nicolson attacking filmed documentation of performance art and asserting the live experience as of utmost importance. She made notes and drawings to record her work, as well as writing essays and collecting accounts from other people. She has never recorded her performances with video, which reflects the technologies that have been available to her, but more likely shows her resistance to lens-based methods of documentation. Some of her works, such as *Matches* (1975), involve such low light that they are impossible to photograph. The fragmented documentation of *Reel Time* drove me to re-imagine elements of the original work so that I could experience them first hand. It has also informed my approach to documentation, which as evidenced by the detail given in this thesis, seeks to offer an alternative way of working to Nicolson and aims to enter into discussion of performance studies more broadly, and expanded cinema specifically.

The theory and practice of structural/materialist filmmaking was authoritatively classified, but expanded cinema remains, "notoriously difficult to pin down or define", and is an, "elastic name for many sorts of film and projection event" (Rees, 2011, p. 12). When expanded cinema originated, traditional artistic genres were being deconstructed and mixed so that one art form was not distinct from another. The term 'intermedia' also came into use in the late 1960s to describe various art activities occurring between genres. It has been more recently discussed in relation to expanded cinema as creating an ongoing expansion and contraction of cinema that, "recognises the interplay between generality (in which differences among art forms dissolve) and specificity (where each art form's distinctness and autonomy are asserted, explored, sustained)" (Walley, 2011a, p. 27).

This ongoing expansion and contraction between disciplines as a way to generate new practice, continually re-defining each field, can be related to Walter Benjamin's consideration of the task of the translator: "The basic error of the translator is that he preserves the state in which his own language happens to be instead of allowing his language to be powerfully affected by the foreign tongue" (Benjamin, 1923, p. 81). This study now demonstrates Benjamin's idea of how viewing one practice or language through the 'lens' of another develops deeper and more expansive understanding in each discipline.

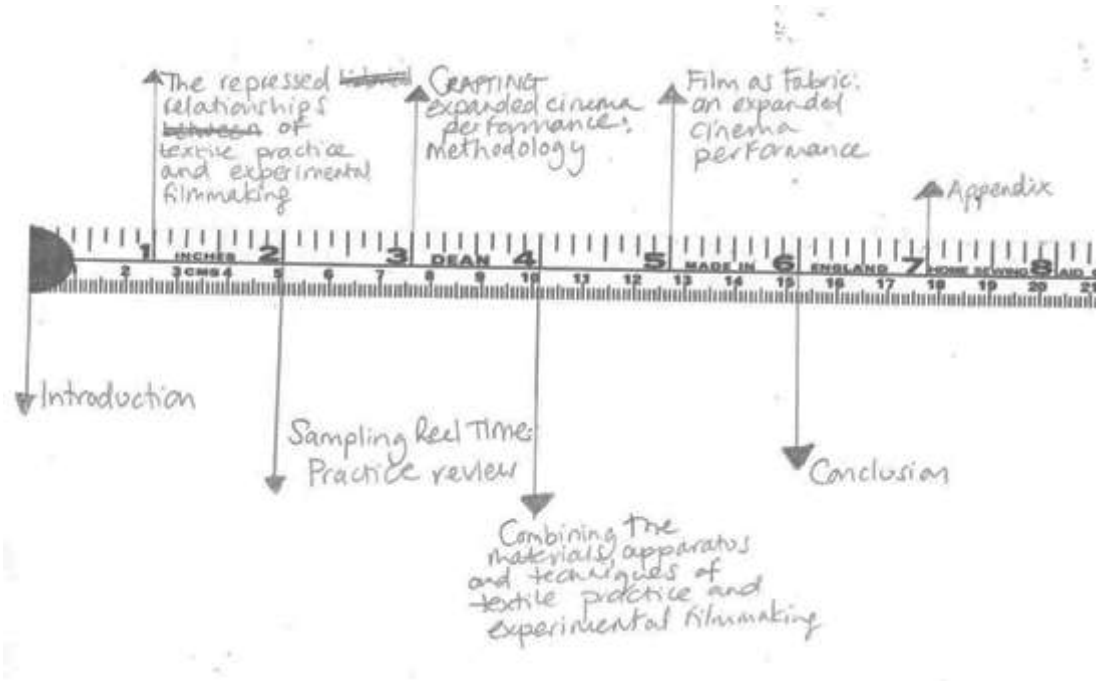


Figure 25.Layout of the thesis. Mary Stark, 2019

Before presenting an overview of the contribution to knowledge, I now lay out the thesis in brief. This introduction establishes the research aims, objectives, methodology, methods and contribution to knowledge. Chapter one then discusses three key overlaps between textile practice and experimental filmmaking: terminology, techniques and apparatus from textile practice adopted by filmmaking in the late nineteenth and early twentieth century; women's work as cutters in early cinema; and Nicolson's *Reel Time*. I identify that the links between the fields arise most in analogue film editing and conclude this is evidence of women's labour.

The second chapter discusses an international constellation of artists who have, since the start of the twenty-first century, developed aspects of Nicolson's *Reel Time*, connecting textile practice, experimental filmmaking, sound and performance art, resulting in single screen films, performance and object-based outcomes. The chapter addresses key themes including: the importance of the artist's body in expanded cinema performance, which I extend into recognition of the significance of clothing; textile practice as performance art; machine sewn film quilts; exhibiting film as fabric-like generating new forms of projection in expanded cinema; how textile practice has been applied to experimental filmmaking; patterned imagery as optical sound in experimental film and expanded cinema; and tactile methods in sound art performance as a way that artists in expanded cinema might shift

emphasis from projected images towards the presence of the performing artist, their materials and apparatus.

The third chapter discusses my methodology of *crafting* noisy expanded cinema performance and the methods used to materialise the theoretical framework. Key theoretical foundations for the study are textile practice as feminist artistic strategy, editing as a craft of connection, and post-materialist expanded cinema. The research will be outlined in three stages: 1) combining the materials, terminology, techniques, and apparatus of the two fields; 2) expanded cinema performance; and 3) performance documentation.

Chapter four analyses the first stage of the research, which focused on studio practice as a way to combine the materials, terminology, and technology of the two fields informed by their historical relationships. The chapter presents the outcomes of this: hybrid objects and tools that demonstrate Sennett's domain shift. This chapter discusses how investigating how to build on Nicolson's live work with the sewing machine and the film projector led to a concern with the sound in *Reel Time*. It discusses how this also led to the definition of two types of moving images and optical sounds made from fabric and stitch patterns: 'stitched rhythms' and 'pitched patterns'.

The fifth chapter presents the expanded cinema performance *Film as Fabric* in which I have recognised and developed the central acts of stitching film and bringing the sewing machine and the film projector together, as well as:

- Preparation
- Sound
- Reflecting light from film
- Relationships between film and the body
- Autobiography
- Site-specificity
- Documentation

I differentiate between my own and Nicolson's approach to performance preparation, which is rooted in our contrasting approaches to performance dissemination. I develop

the way that film reflected light in *Reel Time* by working with film as a fabric-like surface and mass of material, lit with unspooled film projectors. I discuss how translating dressmaking into actions, gestures and loops in expanded cinema performance extends theory and practice initiated by *Reel Time*. I detail my method of presenting stitched rhythms and pitched patterns live, in terms of the process itself; live sound; loops and multiple film projectors, before discussing the practice of measuring and wearing film on the body, the importance of the clothes I wear to perform and how they have informed concerns with autobiography and site-specificity.

Nicolson's empowered performance of stitch in *Reel Time* informed the way I use my live presence and voice in *Film as Fabric*. Thinking about voice loops back to concerns with the sound in *Reel Time*. Using the sewing machine to create sound in sites formerly used for textile production led to research into sound associated with textile practice, which resonates with *Reel Time*, and beyond in terms of a later performance by Nicolson *In the Dream I was Wearing Something Red* (1981-2), as well as her interest in waulking songs[14] and participation at Greenham Common Women's Peace Camp. Finally, I consider documentation of *Reel Time* and discuss how this has informed my approach to documenting *Film as Fabric*.

The conclusion qualifies that I have met the research aim and objectives and points out the implications of the enquiry for theory and practice. I reiterate the value and importance of the project and the capacity of my practice based methodology to reveal new knowledge in a way that only arts based research can. I point out limitations of this study and indicate directions for future research.

[14] Until the mid-twentieth century groups of women from the Western Isles of Scotland sang waulking songs while softening wool so it could be woven and made into clothes and blankets. The wool would be banged on a table, or 'waulked', in time to songs in which one woman sang the question and the rest of the group sang the response – see appendix p.214

Contribution to Knowledge

My research offers a comprehensive examination of relationships between textile practice and experimental filmmaking. By repeatedly returning to analysis of this topic and 'sampling' different elements of *Reel Time* through studio practice and expanded cinema performance, I have crafted a new live work *Film as Fabric* that shows existing connections and creates new links between the fields. This builds on *Reel Time* and recognises women's contribution to histories of film editing. The thesis offers a divergent historical narrative and a review of related contemporary practice. I define similarities between editing a film and making a garment and a glossary of shared terms. This research now manifests and is demonstrated through the live work, a website and this thesis, making an original contribution to knowledge, re-contextualising already existing artworks and supporting future interdisciplinary exchange.

By working with fabric and stitch in expanded cinema performance, textile practice is extended beyond its traditional focus on silent crafted objects and is instead associated with duration, sound, performance art and the moving image. In turn, my textile sensitivity has led to the materiality of analogue film being shown as a mass of shiny fabric-like material that reflects light, as well as carrying photographic images that can be projected conventionally. This work builds on *Reel Time* creating new meeting points between the human body, film, fabric, the sewing machine and the film projector. It highlights sound associated with textile production and defines a varied palette of moving images and optical sound made from fabric and stitch patterns. *Film as Fabric* provides substantial new insights into *Reel Time* in terms of the sound, the body, reflected light, autobiography, site-specificity, performance preparation and documentation. The study shows the value of working with the material specificities of photochemical film as a vital way of analysing and remembering past experimental and expanded cinema works.

Chapter 1: The relationships between textile practice and experimental filmmaking

This chapter identifies and examines existing relationships between textile practice and experimental filmmaking. These are now presented as an interdisciplinary historical narrative that recontextualises existing artworks and supports future dialogue across the genres. A glossary explains some technical terms. A further glossary of shared terms between textile practice and experimental filmmaking demonstrates their common materials, terminology, techniques and apparatus. The three key connections are:

1. Terminology, techniques and apparatus from textile practice adopted by filmmaking in the late nineteenth and early twentieth century, such as the intermittent mechanism of the sewing machine being used in the film projector

2. Many women worked in the cutting rooms of early cinema. Their work was seen as a menial and similar to cutting and stitching cloth.

3. *Reel Time*, a seminal expanded cinema performance in 1973 by Annabel Nicolson, in which a huge loop of film was punctured with the unthreaded sewing machine needle until it was so damaged it could no longer be projected.

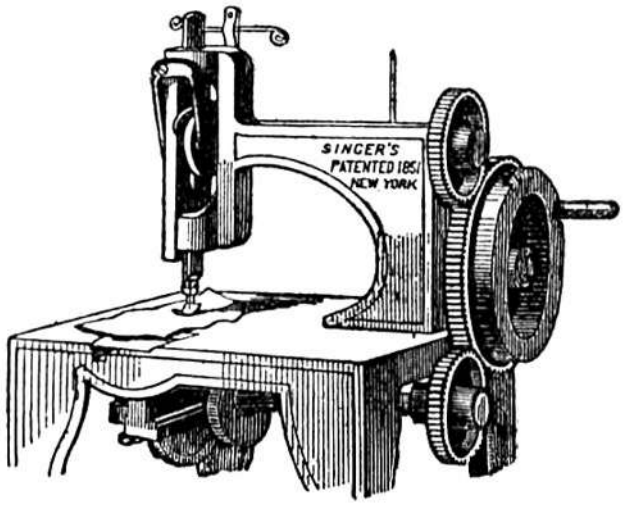


Figure 26.The Singer sewing machine patented in 1851 [online]

The shared technology and terminology of textile practice and experimental filmmaking

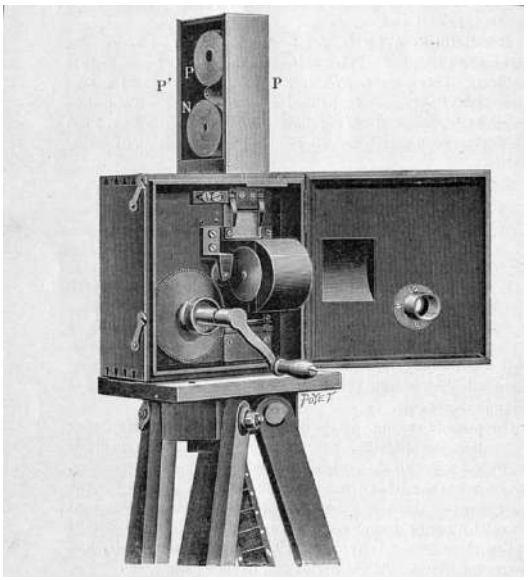


Figure 27. The Cinématographe [online]

My initial understanding of similarities between the materiality of film and fabric was supported by identifying shared terminology and technology between textile practice and filmmaking, such as *spool* and *reel,* and actions, such as to *lace* the film projector and to *wind* film onto a reel. In this chapter I will analyse this common language and apparatus as evidence of female labour, from textile production in ancient Egypt to the work of film cutters in early cinema.

It is thought that the hand crank film transport mechanism of the Cinématographe (fig.27), a machine which is widely acknowledged as the first film projector, was based on the intermittent mechanism of the sewing machine (National Science and Media Museum, 2009: online). Patented in 1851 by the American inventor Isaac Meritt Singer, this mechanism in the sewing machine (fig.26) grips fabric temporarily allowing the threaded needle to penetrate cloth. The Lumière brothers' Cinématographe had two pins, or 'claws', which inserted into sprocket holes at each side of the film, moving it down and then retracting, leaving the film momentarily stationary for exposure and projection. Patented in 1895, the Cinématographe could film, print and project moving photographic images. Today, the mechanics of the film projector remain based on that of the sewing machine, albeit with the addition of electrical rather than hand cranked power.

Figure 28.The Singer Graflex 16mm film projector. Mary Stark, 2019

Further testament to the shared technology of the sewing machine and the film projector comes in the form of the Singer Graflex 16mm film projector (fig.28), which was manufactured by the sewing machine company until the late 1960s. In addition to the link between the sewing machine and the film projector, further relationships between textile practice and experimental filmmaking are shown by two objects that combine tools and practices used for stitching cloth and editing film found by the film archivist Brian Pritchard. Two fragments of 35mm film that have been hand stitched together with black thread, instead of the traditional method of splicing film with splicing tape or film cement (fig.29) and a wooden cotton reel that has been modified to function as a film core, with the simple addition of a small piece of metal held in place with a screw (fig.30).

The reasons for the creation and use of these hybrid objects are left to speculation. Pritchard hypothesised that unavailability of apparatus led to them coming into existence: "It was probable that a projectionist in a cinema was short of equipment - when the film broke he decided to join the film with cotton[15]. Similarly cores might have been in short supply so a cotton reel was pressed into service" (Pritchard, 2019: email correspondence).

[15] His assumption that the projectionist was a man also shows how film projection is well established as a male-dominated profession.

His theory seems likely, the stitched splice was probably never intended for projection, because the threads could catch in the projector. It is more feasible that it was meant to temporarily fix the film before it was spliced. Other than the object found by Pritchard, there is no evidence of cotton reels being used as film cores. However, a film of a *Visit to the Pathé Factory* (Chanel, 1924: online) has titles that describe, "l'embobinage des films" referring to the action of mechanically winding film onto a spool or reel and showing that the French term 'embobiner' means to wind.

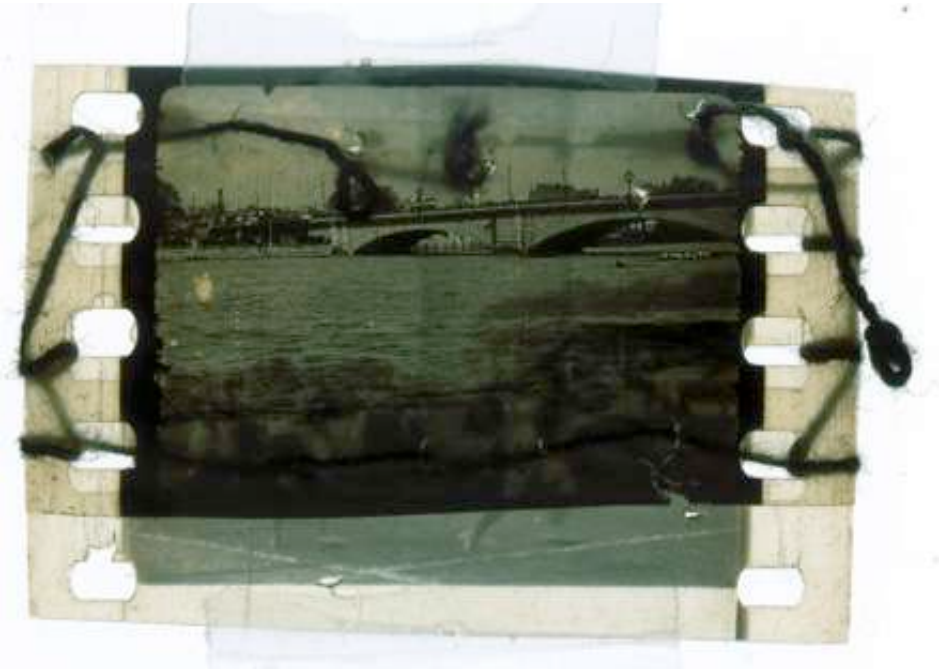


Figure 29.Two fragments of 35mm film hand stitched together with black thread. Brian Prtichard, no date [online]

Other than in my studio, I have never seen or heard of projectionists and editors stitching instead of splicing film, or witnessed needles and thread kept alongside splicer and rewind arms. However, I once encountered a lens wrapped with small lengths of thread to remedy a dysfunctional focus knob on a film projector (fig.31). The lens has a 'thread', a ridge that wraps around its length to form a helix, which allows it to move in the projector and the image to be focused. The cotton thread wrapped round the film projector lens 'thread' suggested an absence of suitable materials to hand or a lack of time and knowledge of how to solve the problem[16]. Like the stitched 35mm splice and the cotton reel film core, it implies a moment of inspiration led to a sudden blurring of textile and filmmaking terminology and apparatus.

[16] When the rubber inside the focus knob on a projector corrodes, the lens can no longer be focused. It can be fixed with a small length of rubber tubing, which is placed in hot water to soften before easing it on.

Figure 30.A wooden cotton reel modified to function as a film core. Brian Prtichard, no date [online]


Figure 31.A 16mm film projector lens wrapped with small lengths of thread. Mary Stark, 2015

The practice of splicing offers a further connection between the terminology and techniques of textile practice and experimental filmmaking. Splicing film involves placing two pieces of film end to end, which are held in position by notches in the film splicer, and then joined, either with film cement or more commonly with splicing tape. The verb 'to splice' is thought to have originally been a sailors' word, first used in the 1520s, from Middle Dutch, 'splissen', ultimately from (s)plei 'to split, splice', meaning to join or connect (a rope or ropes) by interweaving the strands at the ends. 'Splissen' was taken on by the French as 'épisser' and first used in filmmaking from 1912 (The American Heritage Science Dictionary, 2018 online). But splicing is also a method of joining fibres by twisting the ends together, which was carried out in ancient Egypt, and is still practiced in some indigenous communities today (Gleba and Harris, 2019, p. 2330).

In ancient Egypt, linen cloth was made from flax grown on large estates and in the grounds of powerful temples. Women were captured at war and worked as slaves in dedicated weaving rooms that functioned like a production line in a factory: "The women cleaned flax fibres and separated them into strips. They spliced the strips by overlapping and twisting the ends to form a crude thread, which they rolled into balls or coiled into a pile on the floor. The women probably induced the splices to stick together by wetting them with saliva, since saliva contains enzymes that decompose the cellulose of the flax slightly into a gluey substance" (Barber, 1994, pp. 190–191). Saliva is still used as a natural adhesive in textile production in indigenous communities in East Asia, where fibres are held in the mouth or licked (Gleba and Harris, 2019, p. 2337).

Splices in the production of plant-based textiles have similarities with those in film editing. Both film and textile splices often contain tiny traces of tissue from the human body. Film splices may exhibit visible finger prints on the splicing tape and similarly, "microscopic remnants of epidermal tissue are also not uncommon in Egyptian spliced textiles" (2019, p. 2337). Film splices are virtually undetectable when film is screened. Similarly, splices in plant based fabrics are hard to spot in the completed cloth: "experienced modern craftspeople in east Asia can join one fibre to the next with great speed, and so precisely that it is typically difficult to detect any knot, twist, or splice in the finished cloth without a magnifying device" (Hamilton, 2007 in Gleba and Harris, 2019, p. 2341).

Women's work in the cutting rooms of early cinema

Figure 32.The cutting room at the Pathé Frères production studios, Paris. F.A Talbot, 1912

This research shows that the terminology of film editing is borrowed from textile practice. The common language between the fields is now proven to be evidence of the work of women in the cutting rooms of early cinema whose work was seen as a menial and similar to cutting and stitching cloth. At this time, women were recruited by film studios as 'cutters' or 'joiners' (Mahar, 2006, pp. 21–22; Acker, 2009: online; Gaines, 2013: online). A photograph published in 1912 shows over sixty women working at the Pathé Frères production studios in Paris (fig. 32). Many of them sit at edit benches next to large baskets of film, watched over by two men on the sidelines. The book in which the photograph appears offers little information about the women and their work: "Sorting, examining and joining the strips of film. The positives are prepared in varying lengths. The different sections of a subject have to be identified, trimmed and connected to form a continuous ribbon"(Talbot, 1912, p. 156). The women were assembling positive film prints for distribution, working with copies of original films that were made to order and then hired or sold to exhibitors. But which films? What was their process? And why has their work remained in the shadows of histories of film editing?

Figure 33.The colouring rooms at the Pathé Frères production studios, Paris. F.A Talbot, 1912

Figure 34.The colour machine-printing room at the Pathé Frères production studios, Paris. F.A Talbot, 1912

My research suggests that the women were assembling Pathécolor films. This technique was developed in 1905 and remained in use until the early 1930s. It involved the semi-mechanical application of numerous coloured layers of dyes to black and white film through stencils, which created various colour mixes and tones. Between 1905 and 1910 Pathé became the powerhouse of the emerging film industry and the largest film production company in the world, largely due to Pathécolor films, which were in such high demand that they were reprinted and recoloured with updated stencilling techniques (Yumibe, 2015: online). It is thought that, "by 1906, Pathé employed approximately 200 female colourists" (Yumibe, 2015: online), who can be seen in two photographs that show rooms full of women working, referred to as "the colour system" (Talbot, 1912, p. 288), as if they were part of a machine.

At this time, women were seen as tools to facilitate men's artistic visions. They did not have the right to vote, own property and were expected to marry, after which they would perform household and motherly duties, rather than seek formal education. Wives became the property of their husbands, who owned the rights to their bodies. However, they could also undertake jobs seen as menial, like cutting and joining film prints and colouring film. A former Pathés colourist, Germaine Berger, who began cutting stencils for Pathé in 1911 at the age of 15, described how the production studios were strictly controlled and workers were forbidden to converse with each other. Berger's father did not allow her to go to the cinema so her only experience of film as a young woman was through stencil cutting (Yumibe, 2013: online).

The Pathécolor system has been given scholarly attention[17], although the focus remains on the moving images produced, the colouring equipment and techniques. There has been some discussion of the women who coloured the films, but those who cut and

[17] Talbot, F.A., 1912. *Moving Pictures: How They Are Made and Worked*. London: William Heinemann. p287-290
Coe, B., 1981. 'In all the hues of Nature'. In *The History of Movie Photography*. London: Ash & Grant. pp.112-15.
Genaitay, S., 2009. All The Hues of Nature: Colour Film and Restoration. In *Colour and the Moving Image conference, Arnolfini,*. Bristol, 10 July 2009.
DVD (2012) *Fairy Tales: Early Colour Stencil films from Pathé 1901-1908*. British Film Institute.
Yumibe, J., 2013. *French Film Colorists*. [Online] Available at: https://wfpp.cdrs.columbia.edu/essay/french-film-colorists/#toc [Accessed 13 December 2018].
Gunning, T. 2015. *Fantasia of Color in Early Cinema*. Amsterdam: EYE Museum/Amsterdam University Press.
Moen, Kristian. 2013. *Film and Fairy Tales: The Birth of the Modern Fantasy*. London. IB Tauris

joined the films have been left unmentioned. A recent publication pointedly highlights women's labour in colouring black and white film, addressing the reader directly: "As you look at the frames reproduced in this book (or see early colour films projected), try to imagine the labour and skill these anonymous women put into them" (Gunning, 2015, p. 17). The book even includes a photograph of a splice in the Pathécolor film *Vie et Passion de N.S Jésus Christ* (1907). But the splice is discussed in relation to colouring film, rather than in terms of the work of assembling the film print itself, which for this particular film, with a duration of approximately 45 minutes, involved cutting and splicing 39 scenes into a reel of more than 3000 feet.

Vie et Passion de N.S Jésus Christ represents a significant shift in the amount of labour involved in film production, which took place between 1907 and 1913, a period known as the single reel era, when the length of films grew to 400 feet or more. To put this in context, the earliest films, such as the Lumiere brothers' film *Workers Leaving the Lumiere Factory* (1895) were less than a minute amounting to a single uncut shot of around 50 feet. By 1902 films were constructed from a sequence of shots and used intertitles, such as George Melies' *A Trip to the Moon* (1902), which is 845 feet with a duration of thirteen minutes. Further understanding of the scale of production in the cutting rooms is gained by the statement that, "unless a film was likely to sell at least two hundred copies, then colouring was not carried out" (Talbot, 1912, p. 289).

The description of film as a "continuous ribbon" demonstrates that the immediate materiality of film brought it comparisons to fabric, and the process of cutting and joining film was seen as similar to stitching. However, this was less an acknowledgment of expertise, and more an indication of the insignificance of this stage of film production in this era, which meant that it was therefore a job for women. In early cinema, women's skills with needle and thread were thought to be innate and easily transferable to their work in the cutting room. The idea that women were naturally suited to needlework had been buttressed in the nineteenth century, when narrow ideals of femininity were entirely fused with the practice of embroidery so that the connection was deemed natural (Parker, 2010b, p. 11). From a young age, girls had to learn to make increasingly complex stitched samplers that demonstrated their feminine traits, which included being obedient, still and quiet.

Today, the narrative persists that women's "nimble fingers" led to their work as cutters in early cinema (Watson, 2010: online; Lampert, 2013: online). But as the art historian Roszika Parker points out: "Women are nimble-fingered, it's claimed, but women's embroidery has everything to do with their place in society and nothing to do with the size of their fingers"(Parker, 2010b, p. 9). This is proven by the way that editing became a male-dominated field by the 1930s, as it remains today. In 2018, women comprised 21% of all editors working on the top 250 films.[18]

Editing became a male-dominated profession following the introduction of sound-on-film in the late 1920s brought about by the invention of optical sound. When interviewed for a documentary, the film editor Walter Murch implies that when cutting was seen as women's work, it required less complex technical skills: "It was when sound came in that the men began to infiltrate the ranks of the editors, because sound was somehow electrical…it was no longer knitting" (*The Cutting Edge: The Magic of Movie Editing*, 2004, 37min15). But in addition to changing technology, the high financial stakes of the commercial film industry, meant that the editor's role became as highly regarded as that of the director and producer, and so the job was therefore no longer regarded as menial women's work.

The idea of film as fabric and editing as stitching has since been promoted by film historians to play down the importance of women's work in early cinema and distance it from that of male directors. Brief descriptions allude to editing in early cinema being related to stitching cloth, sometimes without even mentioning that it was carried out by women. Shots were, "strung together" (Dancyger, 2011, p. 3) or "simply tacked on to each other" (Oldham, 1992, p. 2). The idea of stringing or tacking shots together implies that there was little skill or creativity involved in the work. However, some women who began work as cutters in the early twentieth century went on to have long successful careers as film editors. Margaret Booth, who started out as a 'joiner' for D.W Griffith and

18 The Celluloid Ceiling has tracked women's employment on top grossing films for the last 21 years. It is the longest-running and most comprehensive study of women's behind-the-scenes employment in film available. This annual study is sponsored by the Center for the Study of Women in Television and Film, San Diego State University. Women comprised 21% of all editors working on the top 250 films of 2018. This represents an increase of 5 percentage points from 16% in 2017, however it is below the 26% achieved in 2015. Seventy four percent (74%) of the films had no female editors (Lauzen, 2019).

went on to be Supervising Editor at MGM until 1968. Anne Bauchens was employed as an editor for more than forty years and was the first woman to win an Oscar for Best Film Editing in 1941. Dorothy Spencer began working as an assistant editor in 1924 and by the 1960s had already worked on over 60 films.

The editor's work is conventionally under the creative control of the director, who is acknowledged as the overall author of films. Dominant narratives tell of editing as having been advanced by a succession of male directors, such as Edwin S. Porter, D.W Griffith, Sergei Eisenstein, Dziga Vertov and Jean Luc Godard. But nearly all of these male directors worked closely with relatively unknown female editors, such as Rose Smith, who edited eleven Griffith films, including *Birth of a Nation* (1915) and *Intolerance* (1916) and Agnès Guillemot, who edited the majority of Godard's films in the 1960s (Wright, 2009). The Russian documentary *Man with a Movie Camera* (1929) shows the editor Elizaveta Svilova working at the edit bench, but her contribution remains almost completely overlooked in comparison to the director, also her husband, Dziga Vertov[19].

Figure 35.Screenshot of Svilova editing in *Man with a Movie Camera* (1929). Mary Stark, 2018

Man with a Movie Camera crucially provides evidence that women's work in the cutting rooms of early cinema cannot be seen as separate from established historical narratives about editing. Svilova was born in Russia in 1900 and began cutting film between 1910 and 1914. By the 1920s she worked closely with Vertov, developing sophisticated

[19]Recent exceptions exist (Penfold, 2013; Pearlman, 2016).

concepts and technical complexity that have consistently been recognised as important in the field of film editing. *Man with a Movie Camera* also features a sequence that intercuts Svilova working at the edit bench with a woman stitching cloth, first by hand and then on the sewing machine, before ending with a scene showing three women working in a textile factory. It offers a powerful challenge to the idea that similarities between film and fabric, editing and stitching, indicate that women's work in early cinema is of little importance. *Man with a Movie Camera* reinforces the idea that the practice of cutting and splicing film offers a tangible, material equivalent to stitching pieces of fabric, but it associates stitching with highly complex film editing, and shows Svilova working at the editing bench alone, in total control of her work space and the construction of the film.

Walter Murch offers a written description of a woman working in a cutting room in early cinema that builds on the portrayal of Svilova editing in *Man with a Movie Camera.* Murch extends the metaphor of film as fabric and editing as stitching into film editing as creating a garment:

> *"In the first quarter of the twentieth century, the film editor's room was a quiet place, equipped only with a rewind bench, a pair of scissors, a magnifying glass, and the knowledge that the distance from the tip of one's nose to the fingers of the outstretched hand represented about three seconds. In those manual, pre-mechanical days, the cutting room was a relatively tranquil tailor's shop in which time was cloth.*
>
> *The editor had seen the film projected when it first came from the laboratory, and she (many editors in those days were women) re-examined the still frames with a magnifying glass, recalling how they looked in motion, and cut with scissors where she thought correct. Patiently and somewhat intuitively, she stitched the fabric of her film together, joining with paper clips the shots that were to be later cemented together by a technician down the hall. She then projected the assembly with the director and producer, took notes, and returned to her room to make further adjustments, shortening this and lengthening that, like a second fitting of a shirt. This new version was projected in turn, and the cycle was repeated over and over until the fit was as perfect as she could make it" (March, 2011, pp. 75–76).*

But despite this highly imaginative quote from Murch, the problem remains that there is little information about women's work as cutters because it was not seen as an important area of film production. I now argue that regardless of the level of sophistication or amount of creative responsibility cutters had (or didn't have), their work needs to be acknowledged as having laid the foundations that the filmmaking industry has since built upon. Today Pathé Frères remains one of the largest production companies in the world. The women working in the cutting rooms assembled films contributing to the success of a company that was instrumental in the birth of the cinema industry. Despite this, evidence suggests that some of these women's only experience of cinema may have been through laboriously handling film. Their task was inherently hidden on screen in a seamless flow of moving images and they worked in postproduction studios that were also concealed from public view. My research therefore contributes an important impression of the type and sheer amount of labour they carried out. But I also argue that, although their work was seen as menial at the time, and has been repeatedly overlooked by film historians, it is of lasting importance and deserves to be recognised.

Filmmaking terminology as gendered

Figure 36.Drawing of chronophotographic gun. Étienne-Jules Marey, 1882 [online]

My examination of how the terminology of textile practice has been applied to filmmaking has been informed by other linguistic links between the camera and the gun. For example, film is 'loaded'; the shutter is 'triggered'; images are 'shot'; footage is 'captured', this terminology is heavily associated with traditional notions of masculinity and infers violence and possession. Just as the Singer Graflex film projector is an amalgamation with the sewing machine, there are literal manifestations that combine the mechanics of the camera and the gun. Étienne-Jules Marey's chronophotographic gun was made in 1882 and gun cameras shown in *Combat Footage From RAF Cameras* (1940), were fitted on the wings of RAF aeroplanes to assist and record warfare during World War II shown (Gaumont British News, 1940: online).

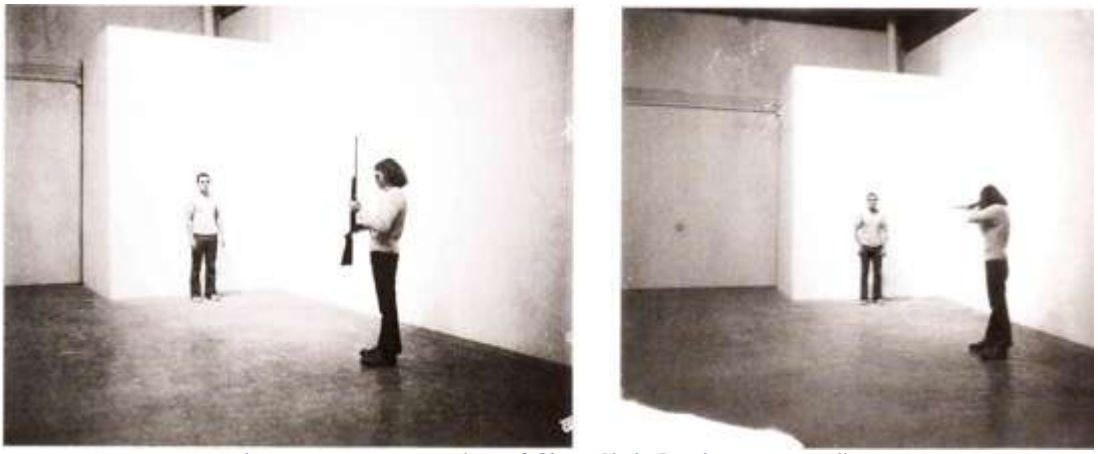


Figure 37.Documentation of *Shoot*. Chris Burden, 1971 [online]

The association of the camera with violence has also been visualised in popular culture, for example, in the film *Peeping Tom*, (1960) a murderous cameraman films the deaths of his female victims with the same apparatus he uses to murder them: a camera that has a knife attached to the front of it. In performance art, Chris Burden's *Shoot* (1971) involved the artist being shot with a rifle in the right arm by an assistant at close range (15 feet). The artist Aliki Braine's series of photographs titled *Hunting* (2009) depict landscapes interrupted with black circles that allude to bullet holes. However, Braine hole-punched black and white negatives before exposing them on photographic paper in the dark room.

Figure 38. *Hunting* #1. Aliki Braine, 2009 [online]

An analogue and a digital SLR camera do not appear much different until they are inspected closely. They also function in relatively similar ways. But in terms of film editing, the transition from analogue to digital practice is not so smooth. Editing video on a computer is far removed from the material practice of cutting and splicing film at an edit bench. However, the terminology of editing photochemical film has been transferred into the realm of video editing software. Digital icons instruct the computer to carry out an action that has a physical equivalent in the cutting room. A razor blade icon represents the 'cut' command. An editor can set up 'bins' to store and organise video, just as film was physically organised in bins or baskets. 'In and out points' can be marked digitally, just as an editor marked where to cut film with a chinagraph pencil. Why is this important? Because the change in film editing practice from analogue to digital dis-locates this terminology from its material origins and allows new terms to be applied.

This is exemplified through Walter Murch's practice, which shifted from analogue to digital editing in the 1990s. He now stands up to edit video at a desk with a computer keyboard. In a documentary, he is shown in his workspace and describes how he is poised for the right moment to cut like, "a gun slinger"(*The Cutting Edge: The Magic of Movie Editing*, 2004: 28 min:57). Murch's description highlights how the loss of analogue editing practice is leading to the material origins of editing terminology being forgotten and overwritten, further concealing relationships between textile practice and filmmaking, and the evidence of women's work as cutters in early cinema. Therefore, it is vital that these connections are recognised before they are further repressed or lost altogether.

Annabel Nicolson's *Reel Time*

This study positions the expanded cinema performance *Reel Time* (1973) by Annabel Nicolson as a pivotal connection between textile practice and experimental filmmaking, and a point of departure for this practice based investigation. Nicolson sat at an unthreaded sewing machine whilst a film of her at the sewing machine was simultaneously projected, looping around the room, through the surrounding audience, then back to the sewing machine, where she used the needle to puncture and gradually destroy the filmstrip. Another unspooled projector cast her moving shadow. Members of the audience read from the sewing machine and film projector manuals, their voices layered with the mechanical noises. The filmstrip, gradually punctured by the needle of the sewing machine, reached breaking point and snapped, making a deafening sound. Whilst the film was re-spliced and laced through the projector and sewing machine again, there was a quiet pause where voices reading out loud could more clearly be heard. This process was repeated until the film was so damaged it could no longer run in the projector.

Figure 39.Photograph of *Reel Time.* Annabel Nicolson, 1973

Few people actually experienced *Reel Time* first-hand. Documentation[20] includes striking black and white photographs, a fragment of film, written memories of the performance by the artist, and a letter recounting the experience of a member of the audience. Nicolson last performed *Reel Time* in 1975 and never worked with the sewing machine and the film projector again, moving into participatory performances involving light, shadow and sound. That she has never re-staged *Reel Time* indicates this is how she wishes the performance to remain.

Reel Time is repeatedly cited as a seminal work in the field of structural/materialist filmmaking and expanded cinema (Elcott, 2008, p. 18; Rees, 2011, pp. 27–28; Webber, 2016, pp. 168–9) because of its concerns with the materiality of film, the theatricality of film projection, and the conceptual and physical relationships of the audience to the projected image. However, I agree with research by the filmmaker Lucy Reynolds, who questioned already existing contextualisation of Nicolson's practice and argued that it had been contextualised reductively (Reynolds, 2009, p. 11). Reynold's thesis, as well as writing by Felicity Sparrow (who was at one of the rare performances of *Reel Time* in the 1970s) and critical analysis by the filmmaker Vicky Smith offer invaluable insights and new readings of *Reel Time* that this research seeks to further extend.

Sparrow focuses on *Reel Time* as a key work in Nicolson's practice. She highlights the gender politics that can be read into the way Nicolson combined the sewing machine and the film projector, as well as the way that both these machines can be associated with hidden labour. She also signposts connections between different stages and areas of Nicolson's work. Reynolds deepens analysis of Nicolson's practice in relation to key works of interest to this study, including the silent single screen colour 16mm film *Slides* (1971) and of course *Reel Time*. She connects Nicolson's practice to notions of the haptic and strengthens contextualisation of the links to textile practice evident in Nicolson's experimental film works. Smith offers in depth analysis of *Reel Time* noting the central position of Nicolson's body to the work, its physically demanding task-oriented nature and the historical connection between the mechanics of the sewing machine and the film projector. Smith also articulates how her analysis of specific aspects of *Reel Time* has

[20] This was exhibited at *Film in Space*, an exhibition at Camden Art Centre from 2012-13.

contributed to the development of her own expanded cinema performances *Bicycle Tyre Track* (2012–2014) and *33 Frames per Foot* (2013).

Sparrow contributes a detailed first-hand account of *Reel Time* that pays attention to the sound, reflected light from the filmstrip, the dramatic life-size shadows created through the use of a second film projector and the help from the audience who picked up the film and helped move it through the room. She also significantly expands ideas about Nicolson's practice. Sparrow recognises combining gendered technologies as a powerful proto-feminist artistic action. She points out that the sewing machine was invented before the film projector, but she does not further explain their intermittent mechanisms: "The Singer sewing machine (invented some 45 years before the Lumières' Cinematograph) is both a familiar household object and potent symbol of women's hidden labour in the home and in sweatshops; by contrast the film projector, traditionally hidden above and behind cinema spectators in a closed-off box and operated by male projectionists, symbolises a vast male-dominated entertainment industry" (Sparrow, 2005: online). Sparrow's analysis links Nicolson's performance with women's hidden labour, both in a domestic and an industrial context. She notes the political power of placing apparatus and practices, which are usually concealed, centre stage.

Reynolds develops the discussion initiated by Sparrow about how Nicolson's experimental film works link to textile practice. She analyses Nicolson's film *Slides* (1971) which was constructed by taking a radical approach to working with a long strip of material that was taped together, "35 mm slides cut into strips, thread, sewn film, light leaked footage, 8mm and 16mm fragments"(Nicolson, 1978: online). She then held it in her hands and moved it in the contact printer during exposure. This process created recognisable scraps of vibrant colour photographic imagery, such as a woman's face, which are interrupted by visual content that moves in and out of frame, created from the parts of the filmstrip that are usually hidden from view, the sprocket holes, frame lines and lettering.

Nicolson understood *Slides* as a development of her paintings[21] (Reynolds, 2009, p. 90) but Reynolds further recognises the importance of *Slides* in terms of the use of stitch, which connects experimental filmmaking to notions of craft: "Nicolson quite literally treated these celluloid strips as material, sewing them together with thread in an allusion to piecing together a garment; an act which related her film away from its mechanical connotations towards an artisanal, hand crafted mode of practice" (Reynolds, 2009, p. 96). Reynolds identifies strong themes in *Slides* that developed into *Reel Time*. She recognises that by stitching film Nicolson highlighted its material basis, an aspect that conventionally goes unnoticed: "*Slides* anticipates *Reel Time*'s disintegrating film strip and stressed the celluloid as a material fabric, rather than a translucent carrier of the film image"(Reynolds, 2009, p. 96). Reynolds builds upon Sparrow's discussion of how Nicolson revealed labour and apparatus that are usually hidden, extending this idea to show that the practice of stitching film makes the materiality of film more noticeable.

Reynolds supports her discussion of Nicolson's use of stitch in an experimental film context with theories of the haptic. The haptic connects the sense of sight with the whole body. It was defined by the media theorist Laura Marks as the way the eye is compelled to 'touch' an object by resting on its surface, moving over particularities at close range to discern texture, rather than distinguish form (Marks, 2000, p. 162). Crucially, haptic imagery has its origins in, "the 'low' traditions of weaving, embroidery, decoration, and other domestic and women's arts" (2000, p. 169), making it an important theoretical connection between textile practice and experimental filmmaking. The counter to the haptic is an optical distanced perspective from a singular viewpoint, but the haptic and the optic blur together rather than being binary opposites. A traditional photographic representation made with a camera results in an optical image, whereas haptic visuality offers a representation of something, such as a woman's body, through ever-changing abstract imagery.

Haptic imagery can be made by filming moving close-up shots with a camera, but it can also be created through camera-less direct methods on film, such as Nicolson's stitching

[21] Nicolson studied painting at Edinburgh School of Art before joining the painting department at Central St Martins School of Art in London in 1970. It was here that she began making films after participating in filmmaking workshops with Malcolm Le Grice.

the filmstrip with the threaded or unthreaded sewing machine needle. The British artist Vicky Smith makes experimental films that feature haptic images produced by methods not limited to but including scratching unexposed 16mm film with her fingernails and spitting ink onto clear film leader. She has also made expanded cinema performances that involve the live production of imagery on the filmstrip through performing an action with her body in front of an audience, building upon Nicolson's performance *Reel Time*.

Smith analysed Nicolson's choreography of production in *Reel Time*. Like Sparrow, Smith highlights the shared technology of the sewing machine and the film projector, which underlies their gendered divide: "Yet despite the interlocking mechanism common to sewing machine and film projector in Nicolson's toolkit, the different tasks assigned to each machine have tended to divide their users along the lines of gender" (Smith, 2015, p. 8). Smith highlights how Nicolson blended gendered associations of technologies, but also notes how her actions merged body and machines. She highlighted the significance of Nicolson's bodily movements being dictated by the apparatus in the performance and its challenging task-oriented nature: "The motors and varying rates of revolution of the two machines operate Nicolson, dictating and altering her rhythms and motions" (2015, p. 9).

Smith also points out that the patterns of stitch made by Nicolson on her sewing machine interrupt the orderly material form and structure of the frames on the filmstrip. Stitching film on the sewing machine follows its linear form overwriting the photographic images oriented horizontally: "The sewn perforations establish their own pattern of regularity and rhythm on the pre-existing filmic order, generating an unusual repetitive mechanical pattern" (2015, p. 8). Through thinking about the haptic, Smith's discussion can be extended. *Reel Time* presented a multi-sensory collision of simultaneously haptic and optic imagery, in which the tactile visuality of stitch, the shadows of Nicolson's body and reflected light from the surface of the filmstrip continually disrupted and eventually overpowered the traditionally produced imagery that was being projected.

Chapter 1: Conclusion

This chapter has confirmed my hypothesis that the shared terminology of textile practice and filmmaking is evidence of relationships between the two fields. While, the connection between the mechanisms of the sewing machine and the film projector is more widely known, the terminology common to textile practice and film editing has not been examined before. Returning to the verb to splice, 'splissen' was taken on by the French as 'épisser' and first used in filmmaking from 1912 (The American Heritage Science Dictionary, 2018: online). This is the same year that the photograph of the women in the Pathé Frères cutting room was published (fig.32). So, the first record of the word 'splice' being used in filmmaking coincides exactly with photographic documentation that shows women in the cutting rooms of the largest film production company in the world. This evidence indicates that the gendered associations and language of textile practice were transferred to film editing because the job of assembling a film in early cinema was seen as similar to cutting and stitching cloth and therefore this was a field dominated by women.

My research demonstrates that historical connections between textile practice and filmmaking are evidence of women's labour in the cutting rooms of early cinema, which has remained largely overlooked. This is supported by Wright's idea that female film editors have undergone 'double invisibility' (Wright, 2009, pp. 8–9). Building on Wright's theory, this chapter shows that women's labour as cutters in early cinema is now undergoing another third layer of concealment due to the rise of video editing and the obsolescence of photochemical film.

Searching for fragments of evidence concealed by layers of time can be related to an archaeological excavation. In her book about the geology of the United Kingdom, the British archaeologist Jacquetta Hawkes observed that language outlives those with whom it originated, "remaining as evidence of the former presence of dispossessed or submerged peoples" (Hawkes, 1953, p. 134). In light of Hawkes' idea, I now understand film editing terminology as the remnants of women's labour, which links back even further to workshops full of women splicing flax in ancient Egypt. These women have since largely been left out of histories that recognise male directors for advances in film editing. Therefore, the linguistic relics of analogue film and unacknowledged women's labour now haunt digital filmmaking practice.

Although *Reel Time* is certainly enriched by considering it in relation to the historical relationships between textile practice and filmmaking, at the time of making the work, how aware was Nicolson of these connections between the fields? This analysis of *Reel Time* suggests that Nicolson did not have any knowledge of women's work in the cutting rooms of early cinema. This is supported by the way there is no mention of it in her collaboratively written chapter titled *'Women and the Formal Film'* in the exhibition catalogue *Film as Film: formal experiment in film, 1910-1975*[22]. It would have been counter to the feminist intentions of the chapter to have known about women's role as cutters and to have not even mentioned it. Nicolson's instruction for two people to read from manuals for the sewing machine manual and the film projector demonstrates that she was consciously trying to highlight their shared technology and terminology. However, it seems likely that this work drew upon and expressed her experience of working with the two machines, rather than being an attempt to establish and highlight a repressed interdisciplinary historical narrative, which is the aim of this research.

[22] See chapter 3 p. 92

Technical glossary

Debrie contact printer

A machine designed to make prints from negatives, it mechanically reproduces photographic imagery on 16mm film through placing unexposed film stock in contact with other materials.

Feet

The most commonly used measurement for a length of film is feet, with a standard foot being 12 inches.

Film core

A film core is a circular form made from plastic with a depth correlating to the film gauge, usually 16mm or 35mm. Plastic film cores have a slit, in which the end of a length of film is inserted so it is held securely before film is then wound onto it. Film cores are used in film editing and projection, in combination with a split reel, which is made from two sides that screw together and come apart so that a film core can be placed in between.

Frame

The film frame is where the visual content of the film is located. A foot of 16mm film has 40 frames, which equates to 1.6 seconds duration projected at 24 frames per second, the standard frame rate for film with sound.

Mm

The width of film is measured in millimetres 8mm, 9.5mm, 16mm, 35mm

Negative/positive film print

The negative image is used to make a positive image, which allows multiple copies of a film to be made.

Tacking

Tacking is a quick temporary hand stitch that holds cloth together or marks the point where two pieces of fabric are to be joined. It is a preparatory process in tailoring, carried out before fabric is stitched on the sewing machine.

Glossary of terms shared between textile practice and filmmaking

Bobbin

Thread is wound on to a bobbin. On a sewing machine, the bobbin holds the thread which comes from underneath the needle to loop through the thread pulled down from a spool on top of the machine and pushed through the fabric by the sewing machine needle. A film spool/reel can also be called a bobbin, although this is a less commonly used term. For both film and thread, bobbins are made of plastic or metal.

Cut

Film and fabric are both cut into pieces. Precise cutting is central to both making a garment and editing film. Fabric is cut with specially made sharp scissors. Film was also cut with scissors, until the film splicer was invented in the 1920s. Pattern cutting is a specific skill in fashion design because cutting fabric a certain way, such as 'bias cutting', affects the way it appears and moves. Cutting is synonymous with the act of editing film and 'a cut' can refer to the transition between two shots. The cut and the splice are interlinked, but also distinct because cutting is the act of dividing, whereas splicing is the act of connecting.

Grain

Both fabric and photochemical film have 'grain', which refers to tiny elements of both materials that affect how they appear. Every piece of woven fabric has two biases perpendicular to each other. When the grain is at 45 degrees to its warp and weft threads, it is referred to as 'true bias'. A garment is 'cut on the bias' when the fabric's warp and weft threads are on one of the bias grains. Bias cutting allows greater stretch in the diagonal direction of the fabric. Woven fabric is more elastic as well as more fluid in the bias direction, so it accentuates the body and drapes softly. Film grain refers to the random optical texture of processed photographic film due to the presence of small particles of metallic silver, or dye clouds, developed from silver halide that have received enough light. Film grain is a function of silver particles, an optical effect, which depends on the film stock and the definition at which it is observed.

Lace

Lace is a very delicate cloth with holes made by twisting together very fine threads to form patterns. A lace is a thin piece of material put through holes and then tied together in some types of clothing in order to tighten it, such as corsets, and most commonly in shoes. Lacing a film projector involves threading the film through its mechanism making sure the tension of the film is neither too tight or slack, so it projects smoothly. This process is similar to threading a sewing machine, which involved taking the thread from the spool on the top to a series of points on the machine, ending with the eye of the sewing machine needle. Just as the tension of the film is vital for film projection, the tension of the thread is of utmost importance in the creation of neat strong stitches.

Reel

Film and thread are both wound on reels. Reels for thread are made of wood, plastic and metal. Film reels are made of metal or plastic. In the film industry, the "reel" was established as a standard measurement because of considerations in printing motion picture film at a film laboratory, for shipping (especially the film case sizes) and for the size of the physical film magazine attached to the motion picture projector. Had it not been standardized (at 1,000 ft or 305 m of 35 mm film) there would have been many difficulties in the manufacture of the related equipment. A 16 mm "reel" is 400 feet (122 m). It runs, at sound speed, approximately the same amount of time (11–12 minutes) as a 1,000-foot (305 m) 35 mm reel. Yarn is also stored and measured on reels that hold different measurements. A lea is 120 yards (110 m) and a hank is a length of 7 leas or 840 yards (770 m).

Roll

Both film and fabric are rolled up as a way of storing large amounts of material. Shorter rolls of film are combined to create longer reels of film. Unexposed 16mm film commonly comes as 100ft or 400ft rolls. Fabric is rolled into 'bolts' of either 40 or 100 yards. Industrially produced fabric is also made into rolls of between 20 and 150 metres.

Splice

Fibres are spliced in an ancient textile technique which involves overlapping and twisting the ends of plant-based yarns with saliva to form a thread. Splicing film involves placing

two pieces of film end to end, which are held in position by notches in the film splicer, and then joined, either with film cement or more commonly with splicing tape.

Spool

Film and thread are both wound and stored on spools. On a sewing machine, the spool holds the thread on the top of the machine which is threaded through the needle.

Trim

To 'trim' a garment means to add decorative additions, usually to an edge or along a hem. But to 'trim' also refers to the act of cutting material down to a required size or shape. Similarly, in analogue film editing, a 'trim' describes a small section of a shot that has been cut out. A film trim bin is similar to a movable clothes rack. It has rows of tiny hooks on which to hang lengths of film and a fabric bag for film to drape into, protecting it from scratches and dirt. Similarly, in tailoring and dressmaking, a clothes rail is used for gathering paper patterns, calico toiles and garments.

Wind

Both film and thread are wound on to spools, reels and bobbins made specifically to hold each material.

Chapter 2: Sampling *Reel Time*

Although there have been scant attempts at bringing together the sewing machine and the film projector in a live context, a number of artists have made works that develop aspects of Nicolson's *Reel Time*. They form a rich emerging international field that connects textile practice, experimental filmmaking, sound and performance art, and has resulted in single screen films, performance and object-based outcomes. I have focused on artists working with analogue film based on my concern with how its material specificities offer a tangible visual equivalent comparable to that of fabric. These artworks have not been formally related to one another or contextualised in relation to the divergent historical narrative presented in this study, which understands relationships between textile practice and experimental filmmaking as evidence of women's work in the cutting rooms of early cinema.

This chapter is structured around key themes, beginning with how artists have developed aspects of *Reel Time* through expanded cinema performance. This leads to focus on theory and practice examining the importance of the artist's body in expanded cinema performance, which I extend into recognition of the significance of clothing. Textile practice as performance art is acknowledged as an emergent field, which highlights tension between presenting a live process with no end product and the desire to craft an object. Craft as performance is positioned as opposite to the creation of machine sewn film quilts, which keep the artist and their making process hidden.

Exhibiting film with reference to its fabric-like qualities leads it to be seen in novel ways that have been contextualised as new forms of expanded cinema. This moves into discussion of how artists have applied textile practice to experimental filmmaking expanding both fields and producing original works. This steers toward an examination of how patterned imagery has been transformed into optical sound in experimental film and expanded cinema. Finally, looking towards live tactile performative methods in sound art is suggested as a way that artists in expanded cinema might shift emphasis from projected images towards their own presence, their materials and apparatus.

Since *Reel Time* there have been few efforts to bring together the sewing machine and the film projector. Lucas Ihlein and Louise Curham, also known as Teaching and Learning

Cinema, attempted to re-stage *Reel Time* as part of their research into re-enacting expanded cinema from the 1960s and 70s as one of a number of initial experiments, which were, "hastily prepared without consultation with the original artists, we drew upon the most basic, public-domain secondary sources. These re-enactment 'sketches' were our fumbling attempts at grasping the vague shape of the original work" (Curham and Ihlein, 2009, p. 3)[23]. They have since offered no further documentation or analysis of their re-enactment of *Reel Time*. However, their focus was on re-staging rather than sampling elements of the work, which is the focus of this study.

Although process-based installation rather than expanded cinema performance, Mauricio Ancalmo connected a sewing machine and a film projector in *©1871 (2004*), with a loop of black film leader that ran through both machines. The sewing machine needle continuously punctured holes in the film, constructing the image projected and the optical sounds heard. Like the stitched rhythms in *Film as Fabric*, Ancalmo showed the potential of creating optical sound with the sewing machine needle. However, his installation ran automatically whereas *Film as Fabric* develops the importance of Nicolson's live presence stitching film in *Reel Time*.

Artists have created expanded cinema works that develop aspects of *Reel Time*: Greg Pope's *Cipher Screen* (2010); Bea Haut's *Pending* (2016); Vicky Smith's *33 Frames a Foot* (2013) and Amy Dickson's *Light Traces* (2012 and 2017, no specified duration). Pope's *Cipher Screen* is based upon gradually mutilating the materiality of film. He uses two short loops of black film leader on two modified 16mm film projectors. The dense layer of emulsion is scratched, hammered and cut, before finally being sanded with a small electric grinder. Pope's choice of tools work in a similar way to Nicolson's sewing machine in *Reel Time* referring to hidden labour in the home, but Pope's tools are from the realm of DIY, which is commonly associated with notions of masculinity.

[23] They subsequently focused more deeply on William Raban's 2'45", re-enacted from 2004-7; Anthony McCall's Long Film for Ambient Light (1976), re-enacted in 2007; and Guy Sherwin's *Man With Mirror* (re-enacted as *(Wo)man With Mirror)* with Laura Hindmarsh in 2009, as well as the publication *(Wo)man with Mirror: A User's Manual* (Curham and Ihlein, 2009, p. 3).

Figure 40.Photograph of *Cipher Screen.* Greg Pope, 2010 [online]

Like Ancalmo, Pope creates optical sound by directly working with film leader, but he also combines this with the sound of the projector mechanisms, which are amplified with contact microphones[24] connected to a PA system so the increasingly crackling optical soundtrack is loudly heard. This amplified sound is combined with the live unamplified sounds of the projectionists/destructionists busy at their work benches towards the back of the room amongst the audience. Pope and his assistant have a distinct presence, but they remain seated and emphasis is continually directed towards the result of their actions manifested in the projected images, rather than foregrounding the visibility of their live process which was a central feature of *Reel Time* and is now in *Film as Fabric*.

Bea Haut's *Pending* (2016) begins with her asking people to hold a 100ft of film above their heads so it can be projected. Like Nicolson's photographic image in *Reel Time*, the

[24] In 2015, I experienced Guy Sherwin and Lynn Loo's performance for three film projectors *RemJet Loops* and observed that they also used a contact microphone to amplify the sound of the mechanism of the film projector.

content of the film depicts Haut holding a heavy wooden ladder above her head. The ladder rungs echo the small photographic frames on the filmstrip, and her projected image reflects the stance that she asks of each member of the audience. As with *Reel Time*, *Pending* involves people simultaneously handling as well as watching film, but the aim of Haut's performance is smooth projection, unlike Nicolson's work, which was characterised by interruption and deconstruction.

Haut explains and offers up the process before *Pending* begins. Then her role is supervisor of the audience's actions and her own projected image, which is almost still apart from the straining muscles in her back as they hold the ladder. The foregrounding of this domestic object emphasises that artisanal filmmaking often takes place in the home rather than industrial space. *Pending* can be read as a post-materialist expression of the artistic strength needed to continue working with analogue film in a digital age, a theme noted by Jonathan Walley, who identified that many artists now centralise photochemical film in expanded cinema because of the inherent difficulties, skill and discipline involved in working with it (Walley, 2011b, p. 244). Nicolson's *Reel Time* is a forerunner of this genre because even before digital technology, her performance was born out of, "endless frustrations with film and with equipment and things not turning out as I hoped" (Curtis, 2002, p. 1).

Pope and Haut develop aspects of *Reel Time*, including the live gradual destruction of a loop or loops of film; layering the mechanical sound of the film projector with that of other live processes; use of domestic tools; setting themselves or the audience a task; and showing the challenges involved in working with photochemical film. Haut's work involves people simultaneously touching as well as watching film; and the inclusion of a projected image of the artist. Pope's work includes amplification of live sound with contact microphones and optical sound created from a direct camera-less method. However, the visibility of the artist performing a live process, which was so striking in *Reel Time*, is not addressed. I counter this in *Film as Fabric*, which highlights my presence handling, stitching, editing, projecting and wearing film.

The artist's body in expanded cinema performance

Figure 41.Photograph of *33 Frames a Foot*. Vicky Smith, 2013 [online]

The British artists Vicky Smith and Amy Dickson both make expanded cinema performances that foreground the presence of their body as they create images live. Smith's *33 Frames a Foot* (2013) is based upon the materiality of clear film leader, whereas Dixon's *Light Traces* (2012 and 2017) does not include film, instead offering a para-cinematic[25] configuration that highlights the physicality of the cinema screen.

Smith's *33 Frames a Foot* involves a physically challenging method of measuring and marking film with her painted feet. She applies paint to each foot and then repeatedly walks, tiptoes and hops on transparent 16mm film to make impressions along its length

[25] 'Paracinema' is a cinema broken down into constituent parts to be experienced separately, as well as jn close dialogue with other technologies (Eros, 2005, pp. 63–100). The term was coined by Ken Jacobs and adopted by theorist Jonathan Walley to describe, "experimental films that reject one or all of the material elements of the film medium but that nevertheless are meant to retain their identity and meaning as films" (Zinman, 2008, p. 17). Cathy Roger's describes paracinema as concerned with where cinema exists without the materiality of film(Rogers, 2013, p. 10).

before it is projected, creating moving images and optical sound. Like my own shift from studio-based practice to expanded cinema performance, Smith's recent work takes her private highly physical animation practice onto the stage (Smith, 2015, p. 3). Like *Film as Fabric, 33 Frames a Foot* is an intentional referral to, and development of *Reel Time*, which Smith understands as, "physically challenging, materialist, feminist-inflected animated labour" (2015, p. 7). Smith's emphasis on the visibility of her body as a resource in expanded cinema performance responds to identifying that the physical presence of the artist is often downplayed in this genre. She refers specifically to the way that Guy Sherwin positions himself in darkness, "as a robust and reliable extension of the apparatus" (2015, p. 4). Smith recognises Nicolson's visibility performing otherwise hidden labour as aligning with feminist concerns that led female artists to have no desire be in the shadows (2015, p. 8).

This idea is supported by Catherine Elwes' essay about women and performance art, in which she states that a female artist asserts, "her irrefutable presence" in an elusive ephemeral live context (Elwes, 1990, p. 165). Elwes posits active authorship as key to the presence of a female performance artist:

> *"She takes on no roles but her own. She is author, subject, activator, director and designer. When a woman speaks within the performance tradition, she is understood to be conveying her own perceptions, her own fantasies and her own analyses"* (1990, p. 164).

Smith has noted that stitch was central to Nicolson performing an empowered grasp on filmmaking technology. In *Reel Time* she was, "an accomplished coordinator of her materials and her tools, demonstrating her physical prowess and knowledge, sewing, shaping and projecting her image," (Smith, 2015, p. 9). Nicolson transferred her confidence, familiarity and skill with stitch into expanded cinema.

The artist Amy Dickson has also developed an intermedia practice by moving into expanded cinema performance from a background in printed textiles. Her work also challenges the way that the artist's body is often in the darkness in expanded cinema performance, as well as developing concerns in *Reel Time* with light, shadow, film, fabric and the female body. *Light Traces* (2012 and 2017, no specified duration)[26] is based upon live interaction with a heat sensitive screen hung on a wooden frame. She uses a thermochromic light to cast shadows of her body onto the screen, which materialise, layer and disappear over the duration of the performance.

Figure 42.Photograph of *Light Traces*. Amy Dickson, 2012 [online]

Dickson's concern with light as material substance relies upon a specially treated piece of fabric. In conventional cinema projection, the tactile existence of the screen vanishes as soon as projected images appear and dominate the field of vision. Dickson shows the screen as wood and cloth, forcing the viewer to contemplate the materiality integral to projection. Her background in printed textiles re-surfaces in these expanded cinema performances, which are implicitly informed by her sensitivity to fabric and the creation of patterned imagery through unconventional photographic methods. *Light Traces* builds on Nicolson's *Reel Time* as both performances feature a female artist creating and intervening in her own image in an ever-shifting live process.

[26] In *Light Time* (2013, approximately fifteen minutes) she uses the same set up but with 24 candles which are lit and then burn out.

Film and the body

Film as Fabric contributes to theory and practice examining the visibility of the artist in expanded cinema performance, but it also extends the way that *33 Frames per Foot* is about film being measured with the female body. Smith observes that, "the female frame tends to be smaller than imperial measurements, which are based on the male form, and my foot corresponds to 33 frames of 16 mm, shorter than the industry standard of 40 frames" (Smith, 2015, p. 13). Smith contrasts the artisanal relationship she creates by measuring film with her female body with masculinised imperial measurements used in industry.

Emma Hart's *Skin Film* (2005-2007) offers a similarly unconventional filmic measurement. She made *Skin Film*, "by sticking sellotape to her skin and then peeling it off, taking off the top surface of her skin, before then sticking the tape and the skin to clear 16mm film" (Hart, 2005: online) Her entire body area equates to 350 feet of 16mm film with a duration of eleven minutes[27]. Smith and Hart's work relates to Murch's description of a woman in early cinema who cut film with the knowledge that, "the distance from the tip of one's nose to the fingers of the outstretched hand represented about three seconds" (Murch, 2011, p. 75). This reflects how film is measured with the body, as is fabric. A yard of fabric is measured with the distance of one outstretched arm pointing straight out to the side from the body.

Murch's theory considered with *33 Frames per Foot*, *Skin Film* and the way that I measure film with the body in *Film as Fabric* suggest that repressed practices are re-surfacing as analogue film shifts into an increasingly marginalised context and artists are forced to use their bodies as a resource in place of access to machinery. Nicolson's *Reel Time* signalled this trend, because in finding her own way of working with filmmaking technology, which was an empowering act on an individual artistic level, she also showed that working with film in radical ways often allows overlooked filmmaking practices to re-emerge and be celebrated.

[27] Projected at 24 frames a second

Film as a gendered body

Hart, Smith and I employ direct filmmaking methods on clear film leader to form novel relationships between film and our bodies, as well as producing moving images and optical sounds in unusual ways. Smith's film *Noisy, Licking, Dribbling and Spitting* (2014) features visceral imagery and roughly textured pulsing optical sounds made by her applying coloured ink and saliva to clear leader with her mouth. Jo Byrne's expanded cinema performance *Screen Kiss* (2007) similarly involves her mouth as an artistic tool. She applies bright red lipstick and kisses a loop of clear leader as it runs through the projector, while a soundtrack of famous screen kisses is heard. Through her use of lipstick and the act of kissing clear film, Byrne makes visible a method which is typically hidden in the darkroom - testing for the side of the filmstrip coated with emulsion, which involves licking your lips, then placing film between them to see which side it sticks to[28]. Like Smith, Hart and myself, Byrne highlights distinct relationships between analogue film and the human body. In particular, Byrne's *Screen Kiss* can be read like Haut's *Pending*, as a demonstration of the artist's love and care for a medium discarded by industry.

James Holcombe's *Hair in the Gate* (2013) involves the artist cutting his own hair so that it falls into the gate of a film projector loaded with clear leader, before also applying his own saliva to the film with his fingers. This process plays on the way that a film projectionist applies a small amount of saliva to film as a way to clean small pieces of dirt and hair from the projector gate. Therefore, *Hair in the Gate* works in a similar way to Byrne's act of kissing film, and the way that I wear and measure film on my body in *Film as Fabric*: making visible an otherwise hidden exchange between film and the body. In his discussion of *Hair in the Gate*, Karel Doing suggests that the projection method Holcombe refers to is well-known (Doing, 2017b, p. 84), but I would argue otherwise. Outside of film projection booths and photochemical filmmaking culture, these typically hidden small acts are not seen or widely known, and they are also now further threatened with disappearance due to film's precarious cultural status. Therefore, showing them as expanded cinema performance is a way of highlighting their importance.

[28] I was shown this at a workshop at N.o.w.here artist film lab in 2012 and I have continued to use it since.

Figure 43.Film still from *Removed*. Naomi Uman, 1999 [online]

Like Holcombe's *Hair in the Gate*, Naomi Uman's handmade 16mm film *Removed* (1999) is based upon celebrating a tactile flaw in the filmmaking process. Her fastidious method re-moulds the way that scratches in the emulsion are typically seen as imperfections. Uman also builds on Nicolson's destruction of her own image with the sewing machine needle in *Reel Time*, although hers is a precise attack on a photographic image of a woman in a pornographic film. On two short scenes, Uman erased the female body frame-by-frame using nail polish remover to reveal the clear base of the filmstrip. The woman's voice remains, transforming her into a shifting, cloaked, ghostly form brought to life by the translucent material that supports the photographic image, which appears white when projected. Uman gestures, "toward a second location of the body, that of an absent figure that cannot be made visible" (Eliaz, 2014, p. 207), her own hidden presence as a filmmaker carrying out painstaking physical labour on a tiny scale repeated thousands of times[29].

Uman's substitution of the image of a woman for the clear base material of film presents film as a female body, extending terminology and physical attributes of photochemical film that relate it to the body. A reel of film is described as having a 'head' and a 'tail', and

[29] Removed is 6 minutes long, so approximately 200 feet of film. There are 40 frames to a standard foot so she erased the woman from around 8000 frames

the filmstrip is coated with a photographic 'skin' of emulsion made from gelatine, a material produced by boiling animal parts with water. In an interview with Susan Poole, the British filmmaker Nina Danino has discussed how editing film has led her to think of film both as a body and a fabric:

> *"I think of films as having a body. In the way that the body occupies its own ground, its own identity, its own feeling, its own matter. It begins, when you make a film – you're creating something that has its own plasticity, its own folds, its own shapes, its own stature, its own verticality, its own sense of standing on its own self. And it's own voice as well. That's the body of the film, not the body behind the camera, or the subject of the film, but the film as a kind of body. As a piece of cloth, a form that is created out of its own material"* (Danino, 2006, p. 100).

Uman's literal presentation of film as a female body in *Removed*, and Danino's association of the materiality of film with both fabric and the body, bring strong gendered associations to photochemical film. Danino's metaphor shows how closely fabric and body are connected – the body's shape and movements animate clothing. Danino's idea is further supported by analogue film being frequently related to and presented as both fabric and female body in the previously discussed works by Smith, Hart and Byrne. In addition, a 1950s educational film about film handling titled *Murder on the Screen* (1958) uses the metaphor of film as a female body in a story about a detective who tracks down various men who may have been responsible for violently killing a woman: a film librarian, projectionist and a lab technician. However, in place of the murdered woman's body a raggedy reel of film is shown (Charlie Dean Archives, 1958: online).

Clothing in expanded cinema performance

Figure 44.*Film and Film #4*. Takehisa Kosugi, 1965 [online]

Like my practice of wearing and measuring clear leader in *Film as Fabric*, the works discussed in this section all use direct methods, the absence of figurative photographic imagery and the translucency of clear film to reveal the hidden laborious processes and tiny physical gestures of analogue filmmaking. In expanded cinema performance, artists highlight otherwise hidden physical aspects of film production by positioning their bodies centre stage. This shifts attention not just on their body, but also on their clothes. My clothing in *Film as Fabric* now represents the history of textile practice in my family, as well as informing how I edit stitched rhythms and pitched patterns. This opens an area of expanded cinema that has so far been given little attention. One exception is Walley's recognition of the clothing worn by the Japanese artist Takehisa Kosugi to perform *Film and Film #4* (1965), in which he made rectangular cuts of increasing size from a paper screen lit by the beam of an unspooled 16mm projector, until the beam hit the rear wall of the space.

Kosugi's clothing, "invoked black and white photography, positive and negative imagery, which connected to the alternations of white (the screen, the beam of light) and black (the darkened space, the growing hole in the screen)" (Walley, 2011a, p. 33). Like

Dickson's *Light Traces*, Kosugi's performance did not involve film, instead focusing on a live process of interaction with a paper screen. Dickson's fabric screen in *Light Traces* functioned like an expanded idea of a garment, simultaneously hiding and displaying her moving body, just as clothing both conceals and reveals the human form (Harvey, 2007, pp. 65–94).

Kristin Reeves' expanded cinema performance *Je Ne Sais Plus [What Is This Feeling]* (2012) takes this theory and practice further. This work features Reeves frantically working between towers of 16mm projectors (nine in total) with twenty-seven ten-second film loops constructed from optically printed found footage from medical films and direct laser-animation techniques. She wears a costume (fig.45) to perform that evokes a hospital worker, pink medical scrubs altered into a mini-skirt dress, black trousers and a head torch, no doubt to see in the dark as she laces and unlaces film loops, but which also alludes to the head mirror often seen as part of a stereotypical doctor's dressing up costume. Reeves states of this clothing: "It is to place me into the medical context. I feel like it gives me more authority over my media bodies" (Reeves, 2019: personal correspondence) Like *Film as Fabric*, her choice of clothing represents her personal history because this work is informed by the way she was frequently photographed for paediatric research (Reeves, 2012: online).

Figure 45.Pre-performance photograph *Je Ne Sais Plus [What Is This Feeling]*. Kristin Reeves, 2012

Textile practice as performance art

Figure 46.Film still from documentation of *Cut Piece*. Yoko Ono, 1965 [online]

Film as Fabric, and particularly Dickson's *Light Traces*, fuse textile practice with expanded cinema performance contributing to a new artistic genre: combining craft with performance art (Burisch, 2016, pp. 54–73). These works do not produce cloth for a purpose or function. Making, materials and equipment are important, but do not necessarily manifest into anything recognisable or tangible. This challenges the traditional object-based focus in craft and enters into an ever-broadening field of textile practice.

Nicolson's *Reel Time* can be positioned as an ancestor of this recent turn because she combined, "the conceptual concerns of performance art with the demonstration of craft skill" (Husbands, 2019, p. 53). Works that are based upon, "the live performance of craft-making" (Burisch, 2016, p. 63) shift craft from the concealed sites of the home, the factory and the artist's workshop or studio into the public sphere. These works reveal hidden multisensory elements involved in the making process, such as sound, as well as foregrounding the live presence of the artist.

Craft and performance art were conjoined in Hannah Leighton Boyce's *The Event of the Thread* (2014), which was produced with Helmshore Mills in Lancashire. *The Event of the Thread* was a collaboratively made live sculpture that lasted one day, which involved over 70 people and 35 houses mapping a continuous line of thread along the lines where tenter

frames once stood. Similarly, Raisa Kabir contextualises her hybrid textile performance practice in terms of, "weaving as a strategy to undo models of production/productivity, and re-situate the disabled body, and the racialised body" (Kabir, 2017: online). *The Body is a Site of Production (*2017) involved her spending ten hours building a loom and using her body as a loom (fig.47).

Figure 47.Documentation of *The Body is a Site of Production*. Raisa Kabir, 2017 [online]

This practice of blending textile practice with performance art can be traced to Nicolson's *Reel Time*, but even earlier to the Japanese artist Yoko Ono's performance artwork *Cut Piece* (1964-), which involved clothes being cut with scissors from the artist's body (fig.46). Like *Film as Fabric* and *Reel Time*, *Cut Piece* foregrounded the presence of the female artist and invited members of the audience to become agents in the production of art. The audience could take away the cut piece of clothing and the whole process was documented on film. Performative artworks often seek to challenge the revered status of finished products but are frequently complicated by documentation with video and photography. *The Event of the Thread* led to the creation of a video and a publication, and similarly I have produced a limited-edition vinyl record of excerpts from performances of *Film as Fabric*. Both my practice and Leighton-Boyce's therefore indicate tension between the live performance of craft process and the deep-rooted desire to craft an object.

Machine-stitched film quilts[30]

Leighton-Boyce and I both trained in textile practice but have subsequently moved towards performance art informed by our backgrounds in craft. Despite the expanding field of textile practice, it remains rare for an artist to engage with the material specificities of photochemical film and its connections to fabric in the way that I have. One exception to this is the American artist Sabrina Geschwandtner, who since 2009 has been recognised in both textile practice and experimental film for her machine-stitched film quilts. Driven by the quilting impulse of preserving and recycling, she sews deaccessioned found footage films into traditional American quilt patterns. After watching films and making notes, she dismantles and organizes them according to colour before re-configuring their thematic concerns using quilt patterns as narrative frameworks. She continues to make film quilts, recently with 35mm film, but primarily with 16mm, as shown by *Hands at Work III* (2017) (fig. 48).

Figure 48. *Hands at Work III*. Sabrina Geschwandtner, 2017 [online]

[30] My focus on stitch omits work, made from the mid 1990s by the Canadian artist Richard Kerr, weaving Hollywood feature films, trailers and his own out takes. Kerr's 'motion picture weavings', such as *X* (2014), are placed between layers of glass and exhibited on custom-made light boxes. Kerr's direct method intentionally evades computers and machines, involving only his hands, scissors and tape. However, Kerr makes no referral to women's labour, instead citing structural filmmakers, such as Michael Snow, as having informed his practice (Hajdin, 2017: online).

Geschwandtner consciously combines film and stitch and is aware that this links her work, "to the sphere of activity that's been called 'women's work', and relates film editing to a form of handcraft" (Lampert, 2013: online). She also has mentioned unacknowledged women's labour in early cinema: "women were hired because they had nimble fingers from sewing. Something that isn't talked about much is how in Hollywood a lot of editors are women because of this tactile history" (2013: online). However, there the discussion ends, suggesting that her works are not informed by the depth of research undertaken in this study.

The American artist Jennifer West also machine stitches 'film quilts', but with a looser approach, which involves multiple processes being applied to photochemical film to emphasise its fabric-like materiality and associate it with women's labour and bodies. *Film Quilt* (2013) is made from 16, 35, 65 and 70mm negative, print and film leader, ink, dye, tape, mylar, fabric, cosmetics, nail polish, spray paint, glitter and kool-aid. West's uninhibited method pays no heed to a particular film gauge or type of content. Instead she treats it with a mélange of everyday processes and tacky materials, most of which have strong links with domesticity and contemporary stereotypical notions of femininity. West's *Nipple Film Quilt* (2015) is made from clear 70mm film leader that she has printed with her breasts, and then machine sewn with thread through the sprocket holes along the edges of filmstrip. *Nipple Film Quilt* treats film as fabric to be stitched and printed, as well as relating it to a distinctly sexualized, typically concealed part of women's bodies.

Both Geschwandtner and West's film quilts allude to a relationship between the sewing machine and the film projector, but do not directly connect the two machines in expanded cinema performance as with Nicolson's *Reel Time* and *Film as Fabric*. Geschwandtner and West keep their labour hidden, whereas, after identifying the importance of Nicolson stitching film live in *Reel Time*, I now develop this practice in expanded cinema performance placing my noisy presence and craft process centre stage.

Transforming textile practice into experimental filmmaking

When installed in windows, Geschwandtner's film quilts function as transparent 'curtains' that light shines through, which the American experimental film theorist Andrew Lampert has defined as expanded cinema. He recognised that showing film in a similar way to fabric allowed it to be seen in new ways: "Your pieces are a new form of projection. They offer us new opportunities to see films in ways that traditional forms of projection won't allow us" (Lampert, 2013: online). Lampert's contextualisation recognises that new experimental filmmaking practice can be produced by drawing upon the aesthetics, materiality, sensitivity and techniques of textiles.

Figure 49. Film still from *Knitting a Frame*. Jennifer Nightingale, 2008 [online]

Jennifer Nightingale makes films that translate knitting patterns into film editing methods. Her films show how both filmic frames and knitted stitches are small repeated units. To make her silent colour 16mm film *Knitting a Frame* (2008), Nightingale connected yarn to a 16mm camera and then filmed herself knitting by advancing a single frame with every stitch. The resulting time-lapse imagery was dictated by the relationship between the rhythmic movements of her hands and the mechanics of the camera. Nightingale used wool to literally bind textile practice and filmmaking together, as well as indexically linking

knitted yarn to the length of film within the camera. In *Knitting Pattern No. 1* (2013, 3 mins), she extends this concept so that a Fair Isle knitting pattern pre-determines the editing structure of the film. The pattern is shown at the start before close up single frames of different coloured balls of wool are shown in corresponding order creating rhythmic mixing colours. Nightingale's current *Cornish Knitting Pattern Series* (2017-) focuses on how patterns from a specific place might dictate the editing of imagery of coastal locations where the patterns derive from (Nightingale, 2017: online).

Figure 50.Filmstrips from *Persian Pickles*. Jodie Mack, 2012 [online]

Jodie Mack uses formal abstract animation methods to transform patterned fabric into playful vibrant, "fabri-flicker films" (Nichols, 2013: online). Mack animates patterned clothing and fabrics in camera frame-by-frame so that, "motifs appear to lift off and separate from their fabric and exist as independently morphing animated shapes" (Smith, 2019: online). Mack's films demonstrate the idea of intermedia, "patterned fabrics retain their status as textiles, yet at the same time exist as animation" (2019: online). Some of Mack's works are shown as single screen projections with performative elements, such as live vocal accompaniment from the audience in Mack's *Rad Plaid* (2010, 6 mins). Mack has also made a series of films *Persian Pickles* (2012); *Blanket Statement 2*: *All or Nothing* (2013) and *Blanket Statement 1: Home is where the heart is* (2012), which demonstrate the potential of creating optical sounds from patterned fabrics by filming them with a super-16 camera so that the images extend beyond the frame into the soundtrack area of the filmstrip.

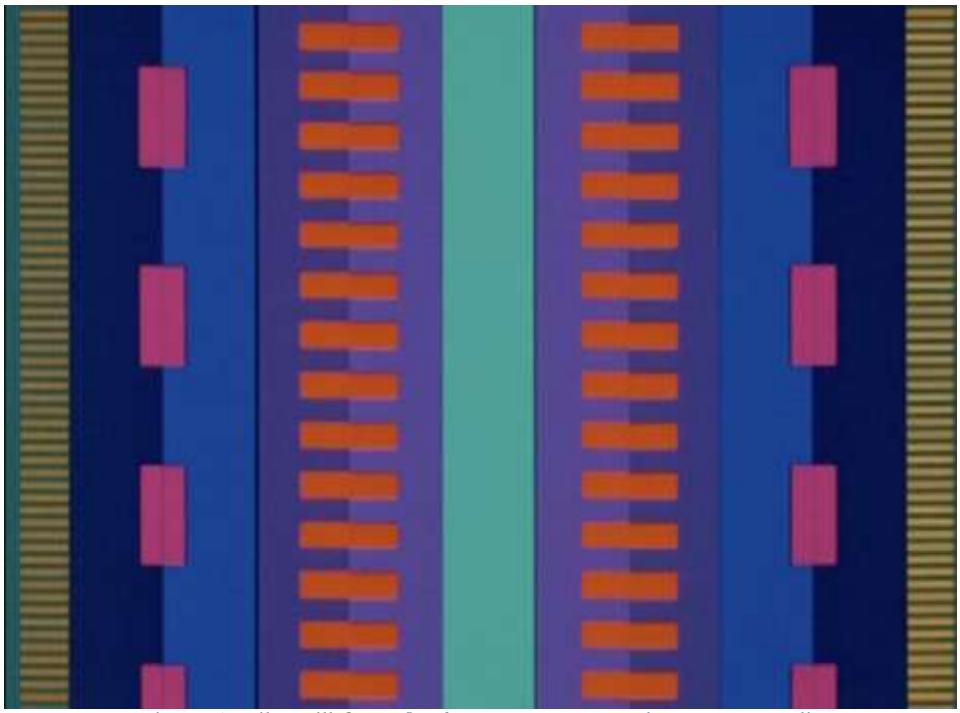


Figure 51.Film still from *Synchromy*. Norman Maclaren, 1971 [online]

My cameraless method of making photograms from fabric and lace ribbon to create what I term 'pitched patterns' avoids the presence of a frame line. It has been informed by Norman McLaren's research into optical sound from the 1950s to the 1970s. McLaren referred to a 'purring' sound (heard in Mack's super 16 optical sound films) as, "faint but audible enough to be undesirable" (McLaren, 1952, p. 6). With the help of Evelyn Lambart, he rigorously devised a system with different striped cards and shaped masks, which were photographed onto the optical soundtrack. Their investigation culminated in the dazzling film *Synchromy* (1970). McLaren refined his method over twenty years, but unlike the optical sounds in *Film as Fabric*, his approach was based on access to mechanical film lab printing and processing equipment that allowed the creation of sonic aesthetics that have a definition, precision and clarity that can be likened to synthesised music.

Lis Rhodes' film *Dresden Dynamo* (1971) also exhibits an astounding variety of optical sounds made by transferring Letratone[31] patterns onto the filmstrip by hand before reproducing it with industrial filmmaking machinery: "The final print has been achieved

[31] Letratone is also known as Letraset, which is lettering that can be is transferred to from one surface to another by applying pressure with a pencil.

through three, separate, consecutive printings from the original material, on a contact printer[32]. Colour was added, with filters, on the final run" (Bruce, no date: online). Rhodes and McLaren show how an experimental hand process can be combined with mechanical reproduction[33] to produce an impressive palette of optical sounds. They also both demonstrate how the single screen format allows artists to intensively and intricately compose with optical sound.

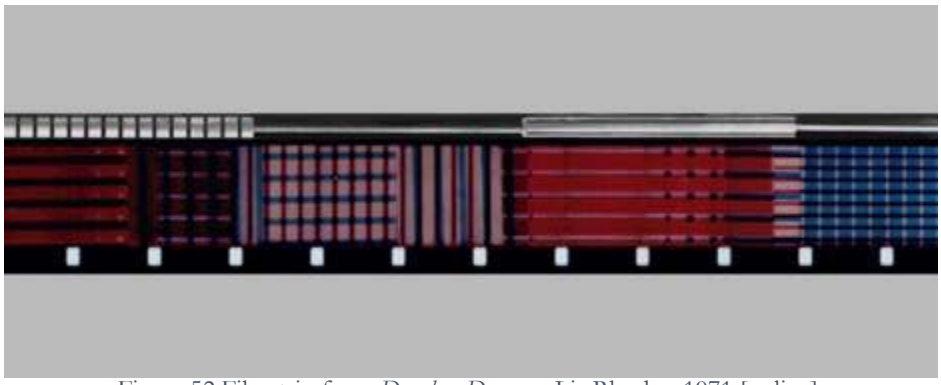


Figure 52.Filmstrip from *Dresden. Dynamo*, Lis Rhodes, 1971 [online]

Like *Synchromy* and *Dresden Dynamo*, *Film as Fabric* features a varied range of optical sounds, but whereas McLaren and Rhodes used mechanical reproduction, *Film as Fabric's* sounds and moving images are made from a combination of direct and cameraless photographic methods that are not mechanically reproduced. My focus on these methods has been due to working with expanded cinema performance as a way to build on Nicolson's *Reel Time* and create new relationships between textile practice and experimental filmmaking. Contrasting with my method of puncturing clear leader with the unthreaded sewing machine needle to make stitched rhythms, McLaren's and Rhodes' mechanically produced optical sounds could not be created in a live context, although as I will show in the next section, these sorts of sounds are often presented as expanded cinema performance.

[32] The soundtrack is printed in black and white and has been shifted 26 frames so that the patterned images align with the optical sounds they create when projected.

[33] In 2014 I attended a Mechanical Reproduction workshop at Nowhere film lab in London to learn how to use the contact printer and the optical printer in order to develop this research. However, I was informed that soon realised that I did not want to work with the contract printer because it produces a frame line.

Patterned imagery as optical sound in expanded cinema

The live direct creation of optical sound and moving images in expanded cinema performance is a practice taken up by myself, Pope, Smith, Holcombe and Byrne amongst others. However, artists often compose with camera-less methods of producing optical sound, creating film loops or reels that are subsequently shown as performance. Lynn Loo and Guy Sherwin's *Washi MM* (2017, 15 mins) is a performance in which the sound is mixed live with three 16mm projectors. The imagery and optical sounds were made by adhering Japanese Washi paper[34] to clear film leader.

Sherwin and Loo's collaborative work with optical sound as single screen films and expanded cinema performance is well known, but Sherwin has been working with cameraless methods, as well as mechanical reproduction since the 1970s. For *Newsprint* (1972 – 1977) he glued a newspaper onto clear 16mm film, punched out the sprocket holes so the film could run through the projector, before using a strong light to photographically print it onto another strip of film so that the letters and words could be heard as optical sound in the projector. He then made *Newsprint 2* (2003), a performance with two projectors. Similarly, *Cycles #1 (Dot Cycle)* (1972-77) was a single screen film made by sticking paper dots onto clear film, which he more recently turned into a performance with two projectors.

Richard Tuohy also adapted his film *Screen Tone* (2012) into an expanded cinema performance *Dot Matrix* (2013). Tuohy creates optical sounds from photograms of half tone dot patterns used in manga cartoons which he contact prints onto raw black and white film stock. *Dot Matrix* involves overlaying two slightly offset projections of black and white patterned dots. The interference between the two projections creates dizzying visual phenomena, but the range of optical sounds that Tuohy produces is perhaps even more impressive. Like McLaren, Rhodes, Sherwin and Loo, Tuohy uses a contact printer to create his optical sound works: "Here in my lab/studio, we have a number of film contact printers. These are continuous contact printers, rather than step contact printers. Step contact printers would introduce a frame line, while continuous contact printers don't. As such, there are no frame lines on the duplicate prints of the original rayogram strips. What I do do is shift the sound track images 26 frames in the contact printer so

[34] made from the bark of mulberry trees

that the sound you hear is what you are seeing on the screen without the 26 frame delay"(Tuohy, 2019: personal email).

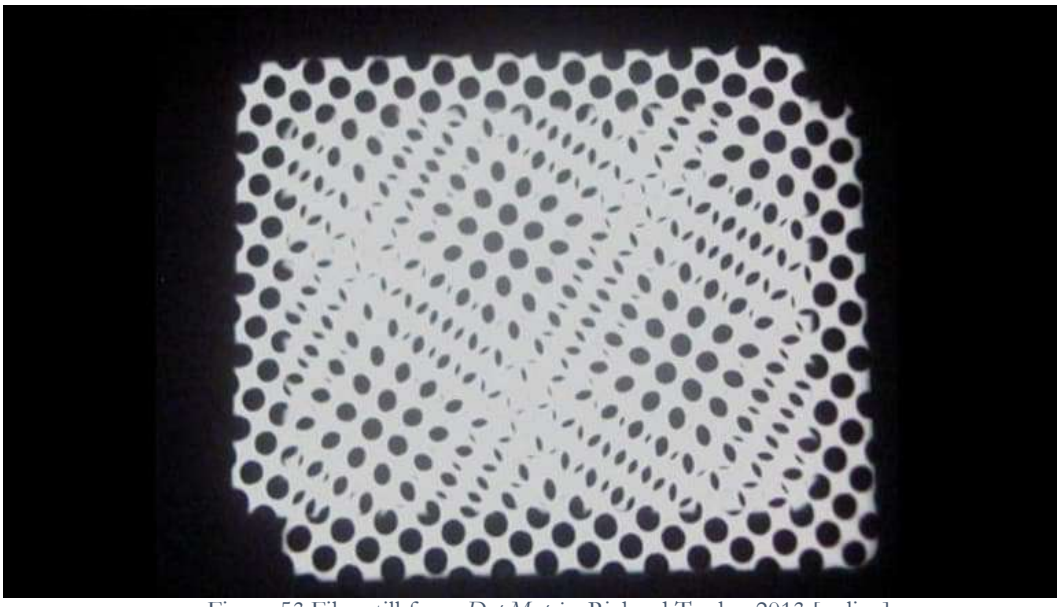


Figure 53.Film still from *Dot Matrix*. Richard Tuohy, 2013 [online]

Tuohy explains why artists use a continuous contact printer to create optical sound in expanded cinema performance, so that the image and the sound it creates can be synced in a film print. My method in *Film as Fabric* uses the form of a short film loop to blend the separation between images and sounds, because I do not have access to a continuous contact printer. However, my primary concern has been with presenting fabric and stitch patterns in expanded cinema performance and working directly with the materiality of film live. My practice has been supported by using uncomplicated experimental image and sound production methods, allowing concentration on performing the labour of film production, rather than carrying out complex work hidden from view.

Tactility in sound art performance

As noted by Smith, artists working with expanded cinema performance place varying emphasis on their live process and presence. Loo, Sherwin and Tuohy's live set ups echo that of a projection booth in a cinema, with projectors at the back of the room, so the focus firmly remains on the projected image. Smith, Byrne, Holcombe and I offer a counterpoint by performing actions live with clear leader that foreground the artist's body and the apparatus, as well as resulting in moving images and optical sound. This expanded cinema performance method aligns with that of a specific area of sound art, in which artists draw upon the inherently performative practice of creating live sounds through the tactile manipulation of physical objects.

I have been influenced by experiencing works such as: Sally Golding and Spatial's *An Halluinogenic Audiovisual Dark Carnival Ride Exploring Themes of Transmission and Medium* (2016); Graham Dunning's *Mechanical Techno* (2016); Howlround's *'tape loop performance for four tape recorders'* (2013); and Naomi Kashiwagi's *Gramaphonica* (2010). These live works focus on the performative tactile engagement that analogue technologies offer, from sound mixing desks and modified turntables, to ping pong balls and gramophones. Their practice, and my own, can be read as a response to the rise of artists and musicians increasingly performing with laptop computers from the turn of the twenty first century[35], which offers little physical expression by the artist and no visual clues as to what they are doing[36].

However, works by Sally Golding that span expanded cinema performance and sound art provide a strong counter to this practice, in a similar way to *Film as Fabric*. When performing *An Halluinogenic Audiovisual Dark Carnival Ride Exploring Themes of Transmission and Medium* (2016), a work that did not feature film at all, Golding arranged the room, so the artists and a mass of analogue apparatus were in the centre with the audience surrounding them.

[35] From 2010-2015, I worked as a filmmaker for Full of Noises Festival videoing performances by experimental musicians and sound artists.

[36] I watched two artists perform in this manner at the same event (William Basinski and then Richard Skelton) in 2015.

In 2014 Golding released the soundtrack of a live expanded cinema work *Ghost – Loud + Strong* (2012) on a compilation of three vinyl LPs, which came with a 12" strip of 16mm film with an optical soundtrack[37]. *Ghost – Loud + Strong* developed the photogram technique so that sound from one analogue format, a flexidisc containing a dialogue about past life regression, could be transformed into optical sound waveforms on film with a 16mm sound camera. She then created a composition by contact printing[38] the results in the darkroom (Golding, 2012: online). *Ghost – Loud + Strong* occasionally shows the waveform on screen, but the primary visual content is flickering textures of light and dark created by the sticky tape used to hold down the fragments of film during exposure. My release of *Film as Fabric* as a 10" record builds on Golding's creation of dialogue between vinyl records and photochemical film. Both these mediums are symbolic of resistance to digital technology.

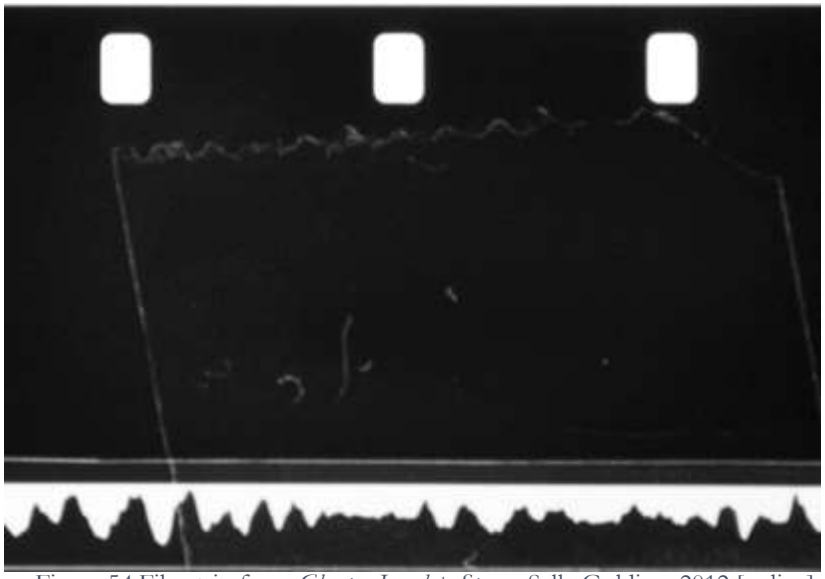


Figure 54.Filmstrip from *Ghost – Loud + Strong*. Sally Golding, 2012 [online]

[37] HFF1 was released by the label Psyché Tropes. The release was based on the idea of making a record from works shown at Hackney Film Festival, which from 2010 was a platform for a community of audio-visual artists living and working in the East London borough.

[38] A contact print is a photographic image produced by exposing film onto film emulsion, essentially resulting in a copy, an inverted image - a negative will create a positive image. Industrial contact printers mechanically reproduce film.

Chapter 2: Conclusion

This chapter demonstrates the unique contextual position of the expanded cinema performance *Film as Fabric*, which has taken Nicolson's *Reel Time* as a point of departure, 'sampling' different elements for practice-based examination. Through considering other artist's theory and practice, the visible presence of a woman stitching and assembling a film, as well as direct methods of creating sound from physical objects and materials are now of importance in my development of *Reel Time*. *Film as Fabric* addresses the way that, since *Reel Time*, the sewing machine and film projector have rarely been brought together in a performance context. *Film as Fabric* contributes to the vibrant area of theory and practice examining ways of combining optical and live sounds, as well as to discussion of the visibility of the artist and their labour in this genre.

Nicolson's *Reel Time* is shown as an antecedent of emergent trends in the contemporary fields of textile practice, experimental filmmaking, sound and performance art: the visibility of the artist and their labour in expanded cinema; making work based upon the inherent difficulties of photochemical filmmaking; craft as performance art; creating live sounds from materials and apparatus; textile practice as a way to produce new experimental filmmaking; and allowing repressed filmmaking practices to re-surface by working with film in radical ways that relate film to the (female) body and use the body as a resource.

This chapter has shown different ways that artists transform patterned imagery into optical sound and moving images in experimental and expanded cinema. Direct and cameraless methods are informed by the way the results will be exhibited, as single screen film or live work. Both modes offer different opportunities for artists. With single screen films, optical sounds can be composed into complex refined arrangements and sounds can be synced with images through mechanical reproduction, whereas working directly with clear leader in expanded cinema performance results in a raw intense crude range of sounds, but the audience are able to see the process that produced them. Finally, sound art performances which create live sound from the tactile manipulation of objects are support a shift in expanded cinema as artists place more importance on their live presence, than the creation of projected images. These themes will be further examined in the following chapters in the context of my own research practice.

Chapter 3: *Crafting* noisy expanded cinema performance

The investigation has involved *crafting* a new expanded cinema performance *Film as Fabric* that develops *Reel Time* by repeatedly returning to overlaps between textile practice and experimental filmmaking. *Film as Fabric* seeks to highlight existing relationships and create new links between the fields, building on *Reel Time* and recognising the work of female film cutters in early cinema. This chapter will discuss the core theoretical positions that underpin the research, which I unpick, interrogate and reassemble into a hybrid conceptual framework. I will show how this theoretical grounding has resolved my approach to the investigation and led to identifying three core areas that form the basis of the submission.

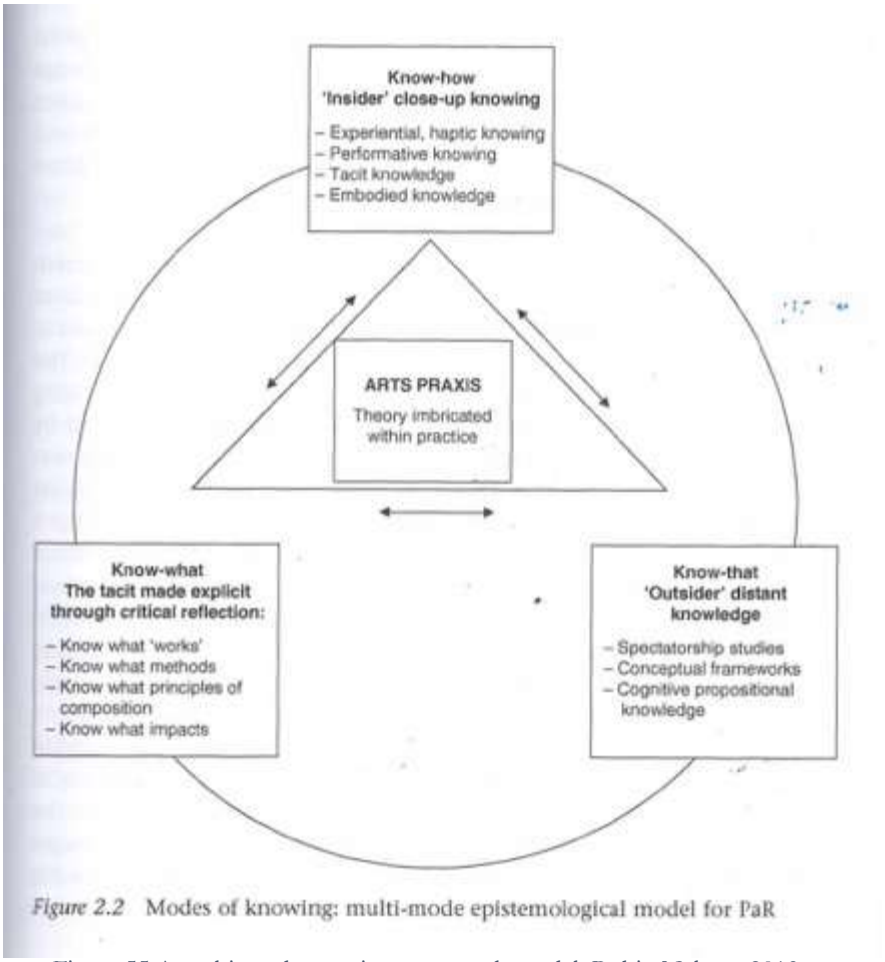


Figure 55.A multi-mode practice as research model. Robin Nelson, 2013

This project draws upon Robin Nelson's 'know-what, know-how, know-that' multi-mode approach (fig.55), devised specifically for performing arts research, in which, "different kinds of evidence serve to confirm the findings of a consciously articulated research inquiry" (Nelson, 2013, p. 6). A multi-mode project comprises of a product with a durable record, documentation of process, and a thesis locating practice in a lineage of influences and a conceptual framework for the research. Reflecting this model, the outcomes of this study are:

- *Film as Fabric* an expanded cinema performance documented in a limited-edition vinyl record release and videos, sound recordings and photographs on a website
- Documentation of process on a website in the form of photographs, videos, sound recordings, notes and drawings
- This thesis which locates the practice in a divergent interdisciplinary/intermedia historical narrative

Film as Fabric is a practice based investigation characterised by examining and manifesting ideas through the creation of artwork. This is an experiential investigation carried out from the perspective of the 'reflective practitioner', as defined by the American philosopher Donald Schön (Schön, 1983) and engages with 'knowing through making' (Mäkelä, 2005, p. 1 online). The creation of new insights has been based upon reflection in, and on, my artistic experience combined with critical analysis informed by contextual research. This investigation has been based upon a repeated cycle of making, performing, documenting and reflecting. The model of knowledge production draws upon the qualitative research method known as the enquiry cycle of self-reflection from action research:

> "Planning a change
> Acting and observing the process and consequences of change
> Reflecting on these processes and consequences, and then
> Replanning
> Acting and observing
> Reflecting , and so on…" (Kemmis and McTaggart, 2003, p. 381).

But the cycle in this research involves:

Practice-based materials-and-process-led investigation
Reflecting on processes and consequences
Planning a change
Acting and documenting
Observing the process and consequences of change
Reflecting, and so on…

Knowledge is created through 'reflective practice', critical reflection after the process of making, but also while in the flow of making as a way to learn from individual experience. defined 'reflection in action', which involves reflecting on something as it happens and, 'reflection on action', which means reflecting after the event, to examine and evaluate the situation (Schön, 1983, p. 323). As I will discuss later in the chapter, video has been an important way that I have put Schön's theory into practice informing my methodology of crafting noisy expanded cinema performance. In this phrase the verb crafting describes my ongoing process repeated iterations of the performance, but it also refers to positioning my intermedia post-materialist practice of transforming stitch into optical sound and moving images in expanded cinema as noisy feminist intervention.

Performing craft/crafting performance

Positioning my use of textile practice in experimental film as feminist intervention builds on a field of theory and practice from the 1970s, in which artists have presented domestic crafts as fine art, with the aim of raising their previously disparaged position[39] and recognising rich histories of women's work[40]. One of the most iconic artworks with this aim is *The Dinner Party* (1979) by Judy Chicago an installation consisting of a triangular table with 39 place settings for famous women throughout history. Each includes a hand-painted china plate, ceramic cutlery and chalice, as well as napkins and table runners embroidered in a variety of stitches. The table stands on a tiled floor inscribed with the names of hundreds of women who made a mark on history.

However, *Film as Fabric* takes this object-based work further by presenting textile practice as expanded cinema performance, engaging this live context to demand attention is given to the relationships of textile practice and experimental film as evidence of women's work in the cutting rooms of early cinema. My use of textile practice and expanded cinema performance as feminist strategy is informed particularly by Lilly Husbands discussion of *Craft as Critique in Experimental Animation* (Husbands, 2019, pp. 45–74). Husbands brings together ideas from Glenn Adamson and Anne Wilson to talk about craft as a way of thinking through practice and "a set of concerns implicated across many types of cultural production," (Adamson, 2007, p. 2; in Husbands, 2019, p. 45). These concerns are not only its "historical alignments with refined skill, mastery of technique and a striving for perfection" (Wilson, 2015; in Husbands, 2019, p. 45), but also its rootedness in material-based knowledge, individual labour and an opposition to industrial forms of production (2019, p. 45).

Nicolson's *Reel Time* is an ancestor of this recent turn to, "the live performance of craft-making" (Burisch, 2016, p. 63) because she combined, "the conceptual concerns of performance art with the demonstration of craft skill" (Husbands, 2019, p. 53). But her

[39] as previously discussed in chapter 2

[40] Until relatively recently, in Western culture, women have been denied access to fine arts, such as painting and sculpture. However, practices seen as inferior - decorative domestic crafts, such as embroidery have been heavily associated with women. Traditional art historical narratives written from "unconsciously accepted White Western male viewpoints" (Nochlin, 1971, p. 1) disregard the long tradition of women crafting in the home.

work is best known in expanded cinema, not in textile practice, even less so, in the broader field of craft. Therefore, chapter five of this thesis seeks to recognise *Reel Time*, as well as a later performance based upon hand stitching *In the Dream I was Wearing Something Red* (1981) as valuable to these fields.

My work producing optical sound from fabric and stitch has been informed by the long association of textile practice with both the oppression and subversive expression of women's voices. This history indicates a wealth of sound associated with textile practice, an area which has been given little attention, but now supports emergent practice combining craft with performance art. The English classicist Mary Beard's discussion of Penelope in the Greek myth Homer's Odyssey opens her book *Women and Power: A Manifesto*. Penelope's husband Odysseus goes to war for twenty years, leaving her and her son alone. Meanwhile, she finds ways to keep suitors at bay. One day she comes into the great hall of the palace and asks a bard performing sad songs to sing a happier tune. At which point her son says: "Mother, go back up into your quarters, and take up your own work, the loom and the distaff…speech will be the business of men, all men, and of me most of all; for mine is the power in this household." Penelope goes back upstairs" (Beard, 2017, p. 4).

Penelope's story shows how textile practice is historically associated with the silencing of women. The seminal book *The Subversive Stitch: Embroidery and the Making of the Feminine* by the art historian Roszika Parker, examines how since the European Renaissance strict ideals of femininity have been fused with the act of stitching. Parker refers to a seventeenth century poem *In Praise of the Needle*, which commends needlework as a way for women to, "use their tongues less, and their needles more" (2010b, pp. 86–87). As well as keeping women quiet, stitching also led to women being kept still, sitting with hands occupied, mouth firmly closed, "eyes lowered, head bent and shoulders hunched," exemplifying "utter submission to a domestic idyll"(Hurlstone, 2012, p. 147). *Film as Fabric* responds to this history by producing optical sounds from fabric and stitch in expanded cinema performance to challenge the strong links between textile practice and the oppression of women's voices.

However, there is also power in the silent concentration of stitch, which can foster autonomy, and even, rebelliousness. To return to the story of Penelope, who submissively went to her room after being silenced by her son, the tale also tells how she used the act of weaving to fend off suitors eager to take advantage by stating that she would only choose a husband when she had finished weaving a burial shroud for her father-in-law, Laertes. But every night, she undid the threads, so her task was never completed. She never set out to weave a finished piece of cloth, her sole intention was the performance of craft, showing the ancient history of this new artistic practice.

In more recent history, two social movements from the twentieth century, the campaign for Women's Suffrage and Greenham Common Women's Peace Camp also challenged the association of textile practice with the silencing of women, by combining clothing, fabric and stitch with the noisy presence of their bodies and voices in revolutionary large-scale political protests that have had global profound effects. In film theory, femininity is understood as a "a constructed decorative layer"(Doane, 1982, p. 81), a mask that can be removed or amplified. In performance art, it has been similarly suggested that, "the skills we develop for the 'impersonation' of femininity can and should be exploited to our own ends" (Elwes, 1990, p. 170). These ideas are exemplified by the actions of both these campaigns.

In 1903 the Women's Social and Political Union (WSPU) was established in Manchester. The WSPU, also known as the Suffragettes, were the leading organisation in the campaign for the right for women to vote in the United Kingdom from 1903-1917. They used stitch as a way to publicly display their femininity and successfully spread their campaign by assembling in large numbers wearing colour coded dresses, carrying finely embroidered banners while singing political songs. In a speech in 1913, their leader Emmeline Pankhurst, highlighted that the noisy physical presence of women was a way to bring attention to their protest:

> *"You have to make more noise than anybody else, you have to make yourself more obtrusive than anybody else, you have to fill all the papers more than anybody else. In fact you have to be there all the time and see that they do not snow you under if you are really going to get your reform realised."* (BFI, 2015: online)

Noise is a particular way to describe sound, it is often an abstract unsettling sound, whose source cannot easily be defined, it is unwanted, an interference or disturbance. Pankhurst identified that women creating noise demanded attention, meaning it was an important tool in their feminist campaign, as it similarly is now in *Film as Fabric*.

The campaign for Women's Suffrage coincided with the growth of the cinema industry. Although the Suffragettes did not make their own films, they made sure they appeared in the weekly newsreels recorded by the national media and screened in cinemas nationally from around 1910[41]. But despite the Suffragette's emphasis on noise, these films are silent, dislocating the powerful link they created between female voice and textile practice. However, the banner maker and writer Clare Hunter has recently re-imagined the way women sang accompanied by marching bands, musicians and mass choirs beneath hundreds of banners, "elaborately sewn in ravishing needlework, employing the most beautiful of fabrics – brocades, silks, damasks and velvets (Hunter, 2019, pp. 129–131).

Hunter also describes her experience of song and textile practice as performative political protest at Greenham Common Women's Peace Camp[42]. In 1981 protesters at this site began using strategies inspired by the Suffragettes. Thousands of women combined clothing, fabric and thread with their noisy female presence to symbolically protest against the threat of nuclear war at a UK site where an American air base was about to receive cruise missiles. Women decorated the nine-mile fence around the base with garments and stitched banners. They wove text and imagery into the wire, referencing domesticity and life under threat. They entangled police, security guards and vehicles in colourful webs of yarn while singing songs that linked weaving with spider webs[43], connecting femininity with environmental concerns and notions of strength.

[41] More recently, in 2015, a touring screening with a live score of twenty-one silent films accompanied by the pianist Lilian Henley titled *Make More Noise! Suffragettes in Silent Cinema (1899-1917)* and a DVD release was programmed by the BFI.

[42] Greenham Common Women's Peace Camp disbanded in 2000, but it was well documented in the 1980s by the women themselves, and consists of a feature length documentary *Carry Greenham Home*, a large collection of stitched banners at Bradford Peace Museum, and a website with videos, photographs and sound recordings http://www.yourgreenham.co.uk/

[43] Spider webs are often barely seen with the naked eye, yet the silk thread they are made from is vital to our eco-system and has strength comparable to steel. Greenham Common Women's Peace Camp played on this idea by visibly making expansive webs from the materiality of coloured yarn.

Both the Suffragettes and Greenham Common Women's Peace Camp combined textile practice with performance and sound. Their loud presence subverted the low status of cloth and stitch and its associations with traditional notions of femininity, and by extension stillness and silence. By combining textile practice with performance art, they associated it with collective female empowerment, with dynamic political action and their voices being heard. Both movements have been briefly linked and positioned as important in theories of performance art (Elwes, 1990, p. 175; Hill, 2000, p. 114), the recent rise of craftivism (Lothian, 2014: online), and textile practice and song in feminist political protest (Hunter, 2019, pp. 128–134). Now I present fabric and stitch as noisy feminist intervention in expanded cinema building on the positioning of textile practice as emblematic of female empowerment when combined with sound and performance art.

The re-emergence of narrative in post-materialist expanded cinema

As outlined in the introduction, *Film as Fabric* makes an original contribution to an emergent field of post-materialist expanded cinema. This field demonstrates a turn to concerns with material-specificity driven by most (if not all) industrial film laboratories in the UK closing and photochemical filmmaking culture shifting into an entirely artisanal context. Just as I started working with film in 2010, its 'death' was heralded and protested against in a high-profile campaign by the artist Tacita Dean (Dean, 2011). But despite its precarious cultural status, many artists persistently work with, or as in my case, begin working with the material-specificities of film after starting out in digital filmmaking.

Post-materialist theory counters the German artist Hito Steyerl's proclamation that artists working with analogue film today are 'souvenir peddling', pretentiously copying the past:

> *"Next time I see another 16mm film projector rattling away in a gallery I will personally kidnap it and take the poor thing to a pensioners home. There is usually no intrinsic reason whatsoever for the use of 16mm film nowadays except for making moving images look pretentious, expensive and vaguely modernist, all prepackaged with a whiff of WASPish art history."* (Rourke, 2013: online)

But Jonathan Walley, Kim Knowles and Karel Doing all argue that while new expanded cinema often intentionally refers to iconic practice from the 1960s and 70s, this widens the range of works understood in the 'materialist' genre. Walley identifies the, "contemporary economics of digital superfluity," as a cultural attack on film which introduces another dimension to its material specificity (Walley, 2011b, p. 22). Similarly, Knowles recognises that new expanded cinema is, "a reframing not a repetition," of materialist concerns because photochemical filmmaking has renewed counter-cultural meaning due to its marginalised status (Beugnet and Knowles, 2013, p. 26).

Doing defined 'post-materialist expanded cinema' through analysis of Vicky Smith's *Primal* (2016), Bea Haut's *Pending (*2016), Karolina Raczynski and Anita Konarska's *Body*

Scan: [A]live Screening (2016) and James Holcombe's *Hair in the Gate* (2013)[44][45]. He explains post-materialist expanded cinema as a development of structural/materialist theory for a number of reasons, but the most significant to this investigation is bringing back narrative in a radical form.

The re-emergence of narrativity in post-materialist expanded cinema is important because subjectivity becomes central to the work, something that certainly does not align with structural/materialist theory, as shown by Gidal stating: "films that end up being adequate documentaries about the artist (subject's) concerns transparently posit themselves against anti-illusionist cinema" (Gidal, 1976: online). Walley points out that new works surpass the strict assertion of the materiality of film confirming the validity of photochemical film in the digital age by including meaning and narratives associated with: "nature, the organic, the body, references to film history, politically charged distinctions between film and video, even illusionism and visual pleasure" (Walley, 2011b, p. 250).

Like Walley, Doing notices that post-materialist expanded cinema demonstrates a range of environmental and social concerns communicated through the inclusion of narrative, "a focus on the body, embodiment and bodily residue, a questioning of gender stereotypes, a stimulation of audience participation and shared responsibility, and an endorsement of simplicity and authenticity" (Doing, 2017b, p. 87), but he extends this to specific artistic values and practices: recycling redundant technology and materials (with the most common material being film), minimal use of resources and grassroots organisation (2017b, p. 87).

Doing notes that artists working with post-materialist concerns in expanded cinema do not overtly attach their work to defined political positions the way that structural/materialist practice did. However, through welcoming narrative meaning and subjectivity into their works, they cannot be detached from political standpoints. From the late 1960s, the idea that, "the personal is political," was central to the second wave feminist movement. Doing relates ambient poetics and critical post-humanism to his

[44] The first three works listed were shown at Contact Festival of New Experimental Film and Video in 2016, at which I also performed *Film as Fabric*.
[45] Although Doing does not discuss his own work, it can also be understood as central in this new genre.

expanded cinema practice (Doing, 2017a) communicating environmental concerns through his 'phytogram' work using plant-based non-toxic chemistry to produce photographic imagery on film emulsion. Vicky Smith has defined an emerging area of practice called 'full body film' after observing that artists working with analogue film have been forced back to their bodies as a resource[46] (Smith, 2012, pp. 42–47). Works that fit this category are tactile films, that arise from not only manual, but full body contact. Holcombe has referred to his work *Hair in the Gate* as a, "real time, full body film" (Holcombe, 2017: personal correspondence). Therefore, these artists attach theories to their work that ground their practice in the politics of obsolescence, environmental issues and the re-assertion of the body as a source of knowledge amongst the predominant "body-less-ness of the digital" (Takahashi, 2008, p. 63). *Film as Fabric* and the interdisciplinary historical narrative in this thesis enters into this burgeoning field of post-materialist theory and practice, and further uses this new thinking by Walley, Knowles, Doing and Smith to re-contextualise *Reel Time*.

[46] The idea of 'full body film' traces back the 1960s with Carolee Schneeman's *Fuses* (1965), a self-shot 16mm film of her making love to her then partner, James Tenney, which she covered with, "bodily fluids released from the sexually aroused body" (Smith, 2012, p. 45).

Textile practice as noisy feminist strategy

The introduction of narrative in post-materialist expanded cinema foregrounds the artist and their body as central. This was evident in past practice, such as Nicolson's *Reel Time,* but, as Smith has noted, the significance of the artist's body has frequently been played down in the field. According to feminist criticism, the reason why this aspect may have been overlooked is due to neat visions of experimental film having been written from narrow misplaced perspectives, which categorise works in terms of their similarities rather than their differences (Rhodes, 1979, p. 119).

Nicolson asserts that *Reel Time* was not made with feminist intentions and was a personal response to the challenges of working with film. She describes *Reel Time* as coming about because her sewing machine was a familiar object in her studio that she felt comfortable with (Curtis, 2002, p. 1). She explains: "I was aware of being female but feminism - you know, the balance of power - those kind of issues, that wasn't what I was thinking about. I was thinking about me and my relationship to the sewing machine" (Reynolds, 2009, p. 85). However, compelling readings recognise *Reel Time* as, "proto-feminist" (Sparrow, 2005: online)[47], because it connected textile practice, and its strong association with women's labour, with the male-dominated filmmaking industry. As discussed earlier, Nicolson's emphasis on the personal nature of the work does not detach it from political motives, rather they become more closely entwined.

Nicolson later co-founded Circles[48], a feminist film and video distribution network in the UK, which was born out of a desire to distribute and screen women's films on their own terms. The establishment of Circles came after an artistic protest motivated by the lack of female representation in the exhibition *Film as Film* at the Hayward Gallery in London in 1979, from which Nicolson was one of a number of female filmmakers[49] who withheld their work. Instead they used their space in the gallery to facilitate discussion, which led to publishing a chapter *Women and the Formal Film* in the exhibition catalogue.

[47] Perhaps Nicolson is trying to avoid her multi-faceted work being categorised through a singular reading of feminist theory.
[48] Circles was founded in 1979 by feminist filmmakers Lis Rhodes, Jo Davis, Felicity Sparrow and Annabel Nicolson.
[49] Jane Clarke,, Jeanette Iljon, Mary Pat Leece, Pat Murphy, Annabel Nicolson, Lis Rhodes, Felicity Sparrow, and Susan Stein

In the chapter Lis Rhodes forcefully proposed that female filmmakers draw upon their own experiences as a way to reconstruct histories of experimental film and create contexts for their work. She envisioned that this would lead to expanded divergent contextualisation of artist film:

> *"Women have already realised the need to research and write their own histories; to describe themselves rather than accept descriptions, images and fragments of 'historical evidence' of themselves; and to reject a history that perpetuates a mythological female occasionally glimpsed but never heard"* (Rhodes, 1979, p. 119).

Since then, the writer and artist Jackie Hatfield criticised histories of experimental film and video for being dominated by, "canonical narratives and pedigreed artworks" (Hatfield, 2006, p. 187). Her dream of rich labyrinthine histories and divergent practice echoed Rhodes vision. The film theorist Robin Blaetz has stated that the fragmentary documentation of women's filmmaking, "should stand as an emblematic part of the history of the cinema,"(Blaetz, 2007, p. 156) and saw this as a consequence of women's work falling into the category of craft (2007, p. 154). In 2009, Lucy Reynolds problematised and extended the reductive contextualisation of the expanded cinema of Lis Rhodes, Annabel Nicolson and Gill Eatherley in her thesis (Reynolds, 2009, p. 9).

The importance of feminist theory in this research has developed in a way that has affinity with Nicolson's. Prior to this study, I made installations by weaving film, which were not preconceived feminist critique, they were a personal response to the materiality of film informed by my background in textile practice. I contextualised this work in relation to debate about the obsolescence of film in a digital age. However, this investigation now strongly responds to this feminist discussion by piecing together histories of textile practice and experimental filmmaking to uncover and nurture connections between the two fields. The process of making, actions, gestures and interaction with materials and mechanisms in *Film as Fabric*, all form a method which seeks to highlight relationships between textile practice and experimental filmmaking, build on *Reel Time* and interrogate the hidden labour of women, with particular reference to their work in the cutting rooms of early cinema.

Editing as a craft of connection

In chapter one I built on Wright's idea showing that women's labour in the cutting rooms of early cinema has been further concealed due to the obsolescence of photochemical film. *Reel Time* offered a glimpse of the way that chapter two shows how aspects of the repressed work of women in the cutting rooms of early cinema are now re-surfacing as artists return to concerns with the material-specificity of film and use their bodies as a resource in the absence of industrial filmmaking machinery.

My analysis of the shared methods, materials, technology and terminology of textile practice and experimental filmmaking has been a way of disrupting male-dominated histories of filmmaking. This aligns with the American art historian Linda Nochlin's call for artistic disciplines to self-consciously examine their languages and structures in order for a more adequate and accurate view of history (Nochlin, 1971, p. 1). The analysis of unconsciously accepted associations of gender connects with a key idea in the feminist movement: showing that naturalised stereotypical notions of gender are culturally constructed and reinforced.

The metaphor of dressmaking occurs as a way of illustrating this idea. Feminist art historians seek to, "redress (my emphasis) the neglect and omission of women artists in histories of art" (Parker and Pollock, 1981, p. 46). To 'redress' refers to the act of straightening or arranging clothing, as well as to the act of rebuilding, repairing or amending something. My actions treating film as fabric, stitching it on the sewing machine, measuring and wearing it on the body, cutting it with dressmaking scissors, all aim to materialise feminist concerns.

Like Walter Murch's description of a woman editing in early cinema, the film theorist Janet Harbord recognises editing as a craft linked to tailoring and compares film to fabric (Harbord, 2007: no page number). She focuses on editing as joining rather than cutting, as a way to disrupt histories of cinema and join filmmaking to other disciplines or histories. She suggests editing is an act of contagion, a lateral movement of disturbance and connection (Harbord, 2010, p. 80). Harbord's theory can be linked to the substitution splice, a trick editing technique from early cinema. The first film said to use this technique is the historical re-enactment of *The Execution of Mary Queen of Scots* by the Edison

Laboratory in 1895, in which the body of the actress playing the queen is replaced with a dummy. However, this technique is credited to the filmmaker George Méliès, whose camera jammed when he was filming a street in 1907. The temporary interruption made cars magically disappear and reappear and men transformed into women.

Méliès developed this technique in films, such as *The Vanishing Lady* from 1896. The substitution splice was often used to make women suddenly appear, disappear and transform, with their bodies manipulated by male magicians[50] as if they were stage props[51]. The visual trope of the 'vanishing lady' has been noted as emerging at a time when women's position in society was changing dramatically, "not coincidentally, in conjunction with both British public discussions of a female population surplus and the feminist movement (Beckman, 2003, p. 6). Vanishing women have been theorised as, "figures of feminist resilience, who keep coming back at a magician who endlessly enacts a collective fantasy of female eradication on the site of her body" (Beckman, 2003, p. 7). Their disruptive power comes from their visual presence, absence and subsequent re-appearance.

Substitution splices played on the visibility of the join. These trick edits involve a sudden intense visual transformation enacted through a cut or a series of cuts to create appearance, disappearance or substitution of something on screen. They have been noted as offering: "a way for seemingly distant ideas and images to be joined in easy association, if only for a moment. But this momentary instability and disruption offers the potential for new ideas to be formed and hidden meanings to be revealed"(Moen, 2013, p. 965). I now understand *Film as Fabric* as functioning like a performed expanded 'substitution splice', a live blurring of textile practice and experimental filmmaking in multiple visible and audible joins between the fields.

[50] Substitution splices were most likely carried out by male special effects technicians and directors who cut and spliced negatives, whereas the labour of assembling positive prints was assigned to women.
[51] There are some exceptions that depict witches with magical powers to transform people, such as the four minute long, *La Sorcière noire (The Black Witch)* from 1907, and the seven minute long, *L'Antre de la sorcière (The Bewitched Shepherd)* from 1906.

Methods

The study uses practice-based methods, specifically textile practice in an expanded cinema performance context, applying two distinct disciplines to one other as a form of research in action. My background in textile practice, in particular, has offered ways to approach and produce experimental film, with a particular focus on direct and cameraless experimental filmmaking methods. The practice employed has tested the hypothesis that film can be compared to fabric, extending this idea in the first stage to investigate how the terminology, techniques, materials and apparatus of the two fields might be further combined. This has been informed by Sennett's idea of the domain shift, which, by stitching film Nicolson made clearly evident. To reiterate, Sennett's theory proposes that, "a tool initially used for one purpose being applied to another task, or the principle of one guiding practice applied to another activity" (Sennett, 2009, pp. 125–129). This investigation shows how the domain shift is valuable in the generation of new knowledge, with both disciplines expanded.

I hypothesised that linguistic and material overlaps between experimental filmmaking and textile practice were evidence of deeper connections between the fields. I identified and examined three key historical relationships between textile practice and experimental filmmaking and demonstrated common terminology of the two fields. I concluded that connections between the fields emerge most in relation to analogue film editing and recognised this as evidence of women's work as film cutters in early cinema. The relationships are:

- Terminology, techniques and apparatus from textile practice were adopted by filmmaking in the late nineteenth and early twentieth century
- Many women worked in the cutting rooms of early cinema and their work was seen as similar to cutting and stitching cloth
- *Reel Time*, a seminal expanded cinema performance in 1973 by Annabel Nicolson, in which a huge loop of film was punctured with the unthreaded sewing machine needle

The first part of the research was enriched by a workshop in Optical Sound and Expanded Cinema at N.o.w.here led by Guy Sherwin and Lynn Loo, as well as artist residencies at La Escocesa Studios in Barcelona in 2013 and the Liaison of Independent Filmmakers of

Toronto (LIFT) in 2014. I developed Nicolson's practice by testing Sennet's idea, which led to outcomes in the form of hybrid apparatus, most notably the 'editing rack', performed gestures and the specific practice of transforming machine stitch and patterned lace ribbons into optical sound and moving images using two methods:

1) 'stitched rhythms' made by puncturing and stitching clear film leader with the unthreaded and threaded sewing machine needle
2) 'pitched patterns' created from photograms of patterned lace ribbons.

I then examined how to present these in expanded cinema performance taking *Reel Time* as a point of departure. The embroidery technique of sampling, which is a way of copying and storing embroidery stitches that the embroiderer uses to create embroidered designs, informed my approach to examining *Reel Time*. I recognised and developed the central acts of stitching film and bringing the sewing machine and the film projector together, as well as peripheral elements of the performance:

- Preparation
- Sound
- Reflecting light from film
- Relationships between film and the body
- Autobiography
- Site-specificity
- Documentation

Film as Fabric is based upon recycling which is a practice shared between stitching fabric and editing film. My practice draws upon inexpensive domestic tools and materials and often involves recycling previously exposed film rather than buying and processing raw film stock. A lack of access to filmmaking facilities and photochemical film culture in north-west England has been punctuated with international artist residencies and workshops when I have suddenly been immersed in film materials and equipment, as well as vibrant experimental filmmaking communities.

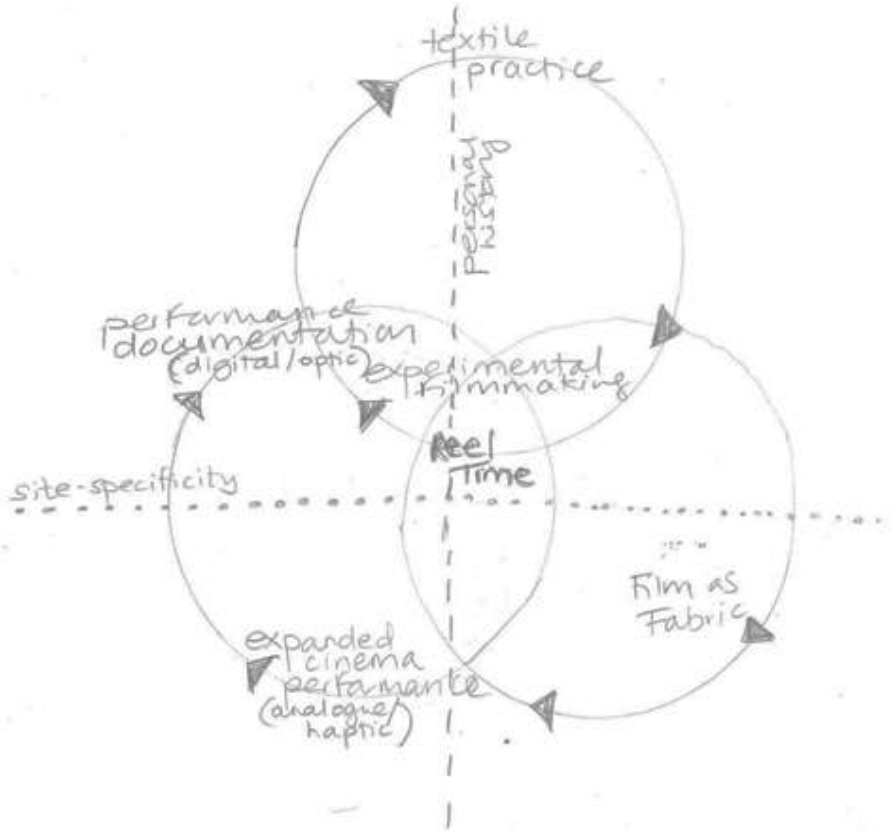


Figure 56.*Crafting* expanded cinema performance with interlocking loops of practice. Mary Stark, 2019

The second stage examined how to present the results of the first stage as expanded cinema performance taking Nicolson's *Reel Time* as a point of departure. Numerous public iterations were documented digitally, reflected upon through studio practice and then re-performed. *Film as Fabric* has been made at a time when digital technology proliferates through almost all aspects of Western life. This has resulted in an expanded cinema performance that deliberately examines, highlights and celebrates the materiality of photochemical film, but which has also been significantly informed through the use of digital photography, video and sound recording to document and reflect on performances. A repeated loop has been created between seemingly separate disciplines, live performance and documentation, digital and analogue technologies, haptic and optic modes. My personal history and location ground the research in the industrial heritage of the north-west of England. I now present these interlocking repeating loops of practice as a methodology I term *crafting* expanded cinema performance, which refers to the ongoing act of refining an expanded cinema performance through numerous iterations and the intention of engaging fabric and stitch as feminist critique.

Communication with Nicolson

Lucas Ihlein and Louise Curham, attempted to re-stage *Reel Time* based on secondary sources before focusing on other works and identifying that dialogue with the artist was crucial:

> *"Such relationships allow us to acknowledge that our re-activation of these works is absolutely linked to the original creative works (rather than being simply an appropriation, parody, cover-version or "mash-up"). Our conversations with the originating artists offer us the chance to check details and discuss the dilemmas presented by re-enactment. In some cases, a strong inter-generational relationship develops – akin to the careful passing down of practical knowledge via oral-history"* (Curham and Ihlein, 2009, p. 3).

Their idea was put into practice by Collective-Iz who worked closely with Nicolson over two years to re-stage *Matches* (1975). But rather than aiming to re-enact *Reel Time*, the way that I have generated new knowledge has been through sampling the performance through practice-based investigation. However, sampling can be understood as a form of copying, or re-working, something that already exists. Therefore, I have carried out this investigation with sensitivity that I am drawing heavily upon an iconic expanded cinema work, which has been further emphasised by the artist as highly subjective. I have been supported by regular, if intermittent, written correspondence with Nicolson, as well as a long telephone discussion.

I wrote to Nicolson, never sure of getting a reply. In my letters I posed questions to Nicolson about *Reel Time*, who said that she would try to answer them. As time passed her answers came by way of offering documentation and contextualisation of her work so that I could draw my own conclusions. She showed support for my research, as well as recognising the value of my approach:

> *"The questions you raise are important and also quite challenging as you are approaching Expanded Cinema from an unusual perspective. I can relate very easily to what you write about film as material, light, sound and the physical properties of the filmstrip, but no one has asked me about the relationship of film to textiles before. I like the idea of the filmstrip as material to work into and of course have used celluloid in certain films, at least one I can think of, but have not*

given this wider relationship of filmstrip to textiles the kind of focused attention that you have" (Nicolson, 2013: personal correspondence).

However, communicating with Nicolson has strengthened the research, but it has not been an essential component, as articulated through the re-staging practices of Collective-Iz and Curham and Ilhein.. There has always been, a sense that I am forging my own path through similar territory. The primary way that I have generated new knowledge has been by repeatedly returning to *Reel Time*, sampling elements of the original work through expanded cinema performance, bringing film, the sewing machine and the film projector together and testing the hypothesis that film can be compared to fabric.

The format of accepted histories has been identified as countering feminist art historical efforts, which "submerge women once again in a slightly reformed but still traditional notion of history" (Parker and Pollock, 1981, p. 45) However, Rebecca Schneider proposes that performance practices are ways of telling and writing history. Performing can be understood as a form of memory that challenges the traditional emphasis on documentation and material objects: "These performance practices are always reconstructive, always incomplete, in performance as memory, the pristine self-sameness of an 'original', an artefact so valued by the archive, is rendered impossible"(Schneider, 2012, p. 69). If performance is a, "way of keeping memory alive, of making sure it does not disappear" (Schneider, 2012, p. 69) then *Film as Fabric* is a way of knowing and remembering of *Reel Time*.

Performance shows tacit knowledge, which demonstrates knowing in action. Tacit or embodied knowledge manifests as actions that are internalised through practice and then are performed by the body almost automatically. Tacit knowledge is a form of memory stored in the body and nowhere else, making it into a living document. Schneider situates, "the site of any knowing of history as body-to-body transmission" (Schneider, 2012, p. 74). Her proposal, combined with the idea of film as a body discussed in chapter two, might mean that in the absence of the artists themselves we need to continue working with film's material-specificities as a vital way of researching experimental filmmaking history.

Performance documentation

> *"Performance becomes itself through disappearance Performance's only life is in the present. Performance cannot be saved, recorded, documented, or otherwise participate in the circulation of representations of representations: once it does so, it becomes something other than performance."* (Phelan, 1993, p. 146)

> *"Documentation is an important function in broadening the audience for the performances and making them accessible beyond the time and place of the exhibition itself. However, we must still consider the extent to which any documentation sufficiently represents the experience of direct involvement with a live performance. In addition, as an exhibition or performance moves further into the realm of "history," its documentation will become increasingly important and in turn may displace the significance of the original event"* (Burisch, 2016, p. 70).

Reel Time can be read as an attack on filmed documentation of performance and an assertion of live experience as of utmost importance. Nicolson made notes and drawings to record her work, as well as writing essays and collecting accounts from other people, but she never filmed her performances, which reflects limitations of the technology available at the time but can also be understood as showing resistance to lens-based methods of documentation. Some of her works, such as *Matches (*1975), involve such low light that they are impossible to photograph.

Analysis of documentation of *Reel Time* drove me to re-imagine elements of the original work so that I could experience them first-hand. There was always a sense, underpinned by my own experience of working with film and stitch, that documentation left much of the full experience of *Reel Time* unknown. It has also informed my approach to documenting *Film as Fabric*, which as evidenced by the detail given in this thesis, seeks to offer an alternative way of working to Nicolson's, that aims to contribute to discussion of performance studies more broadly, and expanded cinema specifically.

Echoing Rhodes proclamation that women artists, "need to research and write their own histories; to describe themselves rather than accept descriptions, images and fragments of 'historical evidence'" (Rhodes, 1979, p. 119), the artist Catherine Elwes categorically

stated,"if women's performance is not more substantially recorded it will be lost" (Elwes, 1990, p. 65). My response has been to methodically document the numerous iterations of *Film as Fabric*. In particular, digital video and photography have been instrumental in this quest and in the development of *Film as Fabric*. I have made videos of most performances and some studio-based practice, so that I can see and hear the work from a distance[52]. In addition, sometimes photographs and videos have been taken by people in the audience.[53]

Videos have rarely been shown to anyone, but they now evidence my reflection-in-action, as well as allowing reflection-on-action. Videos of studio tests of Weaving Film (2015) made to send to curators of an event demonstrate Schön's theory. I made these videos to show or sketch an idea I had for a performance. However, I was also able to analyse my movements, hear the sounds created and see the way film reflected light as I wove it in the light of an unspooled film projector. I could see the significance of the way my black and white patterned dress combined with the black and white leader. I recognised that I could move the editing rack intermittently adding subtle rhythm to the performance, changing the reflected light and shadows.

This cycle of performing with photochemical film but using digital video to document and reflect relates to Marks' theory of haptic criticism, which she describes as a practice of maintaining strong dialogue between, "sensuous closeness and symbolic distance" (Marks, 2002, p. xiii). My embodied enchantment with photochemical film manifests as expanded cinema performance, but this deliberate foregrounding of analogue practice has been deeply informed by the optic detachment of watching and listening to digital videos and photographs of the performance. The haptic and the optic modes are not binary opposites but frequently blur into one another. Similarly, my practice loops

[52] I use a Canon Mark II SLR camera with a 50mm F1.8 lens for low light on a tripod. I sometimes additionally record the sound with a Zoom H4 digital sound recorder. I find a place for the camera and tripod that is not intrusive, usually in a corner somewhere amongst the audience. I try to get as wide a view as possible.

[53] At one stage, I made a point of asking people not to take photographs, but it is not always easy to assert, and I have found that people are sensitive in taking photographs discreetly, if at all. A rise of performance art in the UK has been contextualised as is a response to a screen based culture, because the immersive multisensory live event is a momentary respite from the digital realm (Doran, 2019: 40 minutes). Perhaps this is partly why audiences have been focused on the live physicality of *Film as Fabric* rather than on taking photographs.

between the haptic and the optic, analogue and digital technologies, so they have richly informed one another.

Digital and analogue technologies are frequently placed in opposition to one another, as discussed by Tess Takahashi who notices that, "within the cinematic avantgarde, the artisanal has come to function as a site of utopian freedom from the automatic, ahistorical, depersonalized, dematerialized processes currently associated with digital technology" (Takahashi, 2008, p. 51). However, my method shows that the two modes are intricately entwined and cannot be separated from one another as observed by Claire Bishop, "the digital is, on a deep level, the shaping condition—even the structuring paradox— that determines artistic decisions to work with certain formats and media" (Bishop, 2012, p. 436).

Digital documentation methods vitally support rather than suppress photochemical filmmaking culture because international networks of artists are held together by communication through artist websites, forums, and of course, social media: "The digital is a channel for communication with other likeminded filmmakers. Digital media operate like a billboard or telephone-a conduit-but not a medium for making art" (Takahashi, 2008). The web has also been suggested as bringing, "new kinds of film access and experience," and is, "more of a natural home for radical cinema than the art scene," because it, "exists in and through exhibition, preferably collective, and undermines any objecthood it might possess" (Rees, 2013, p. 57). Throughout the research, the internet has been crucial in development and wide dissemination [54]. Therefore, a website offers a space where documentation has been brought together to be disseminated it internationally.

[54] On both artist residencies I kept a blog, which have since been referenced by academics in experimental film

Chapter 3: Conclusion

In summary, this project has been carried out in three stages underpinned by the previously outlined feminist intermedia post-materialist discussions:

1) Informed by: Sennett's domain shift theory; feminist critique of histories of art; the theory and practice of craft as feminist intervention; and structural/materialist film theory, the first stage aimed to analyse and disrupt dominant language and prevailing narratives by examining historical relationships between textile practice and experimental filmmaking and testing how their materials, apparatus, and techniques might be combined. This resulted in the creation of hybrid tools, objects and a range of optical sounds and moving images: pitched patterns and stitched rhythms.
2) The development of presenting pitched patterns and stitched rhythms as expanded cinema performance, taking *Reel Time* as point of departure, was driven by: feminist discussion of textile practice and its historical links with both the silencing and expression of female voice; the way that two feminist social movements engaged fabric and stitch in loud performative political strategies; and the idea that the repressed connections between textile practice and experimental filmmaking are evidence of women's work as film cutters in early cinema, who have undergone multiple layers of invisibility.
3) Finally, I questioned how to present documentation of numerous iterations of the expanded cinema performance *Film as Fabric* and constructed an intermedia historical narrative by writing this thesis, and that women's performance art will be lost if it is not documented; that women need to write their own histories and contexts for their work; as well as the idea of the body as a living archive and performance as a mode of memory.

Chapter 4: Combining materials and apparatus of textile practice and experimental filmmaking

I have created new connections between textile practice and experimental filmmaking in three stages. This chapter discusses the first stage, which has involved combining their materials and apparatus informed by historical relationships between the fields, as well as the way that *Reel Time* brought the sewing machine and the film projector together. I will start by discussing how combining seemingly different materials and apparatus resulted in the creation of hybrid objects and tools that demonstrate Sennett's domain shift theory of, "a tool initially used for one purpose being applied to another task, or the principle of one guiding practice applied to another activity" (Sennett, 2009, pp. 125–129). I will then discuss how analysis of the sound in *Reel Time*, as well as examining how to combine materials and apparatus from the two fields, led to defining two types of optical sounds and moving images made from fabric and stitch patterns, which I term 'stitched rhythms' and 'pitched patterns.'

Building on the way that Nicolson connected the sewing machine and the film projector I first focused on specifically creating further relationships between these two machines, as well as broader examination of how the materials and apparatus of textile practice and filmmaking might be combined. This practice can be related to film's shift from industrial to artisanal ownership, which has increased access to equipment and allowed artists to, "freely reinvent every stage of the process of production" (Knowles, 2014, p. 22) and, "stake custodianship of film by touching and handling it in unusual ways" (Smith, 2012, p. 42). Combining the materials and apparatus of textile practice and experimental filmmaking contributes to the idea that photochemical filmmaking culture is, "a field of new discoveries, in which the practice of creating hybrid/bespoke apparatus takes artist filmmaking into new directions" (2014, p. 22).

The 'editing rack'

I propose that overlaps between textile practice and experimental filmmaking most occur in analogue film editing apparatus. I used empty spools of thread to exhibit film loops as installations[55] (fig.57), spliced film to ribbon (fig.59) and wound ribbons onto film reels (fig. 58). They functioned like preliminary sketches that helped to develop analysis of links between the terminology and technology of the two fields.

Figure 57.A film loop installed using empty spools of thread. Mary Stark, 2013

I immediately recognised a film trim bin[56] as a connection between the fields. Film trim bins are similar to movable clothes racks. They have rows of tiny hooks on which to hang lengths of film and a fabric bag for film to drape into, protecting it from scratches and dirt. Similarly, in a seamstress or tailor's workshop, a clothes rail is used for gathering paper patterns, calico toiles and garments. I used the trim bin to view and organise lengths of lace ribbon before making them into photograms (fig.60). As this is now obsolete apparatus, I made a film trim bin by modifying a portable clothes rail (fig.61). This new piece of equipment, which I call an 'editing rack', further connects the fields and is an important tool in my studio-based practice and expanded cinema performances.

[55] Watch a video of a studio test of From *Fibre to Frock* (2013) https://vimeo.com/57236528
[56] In 2014 at LIFT

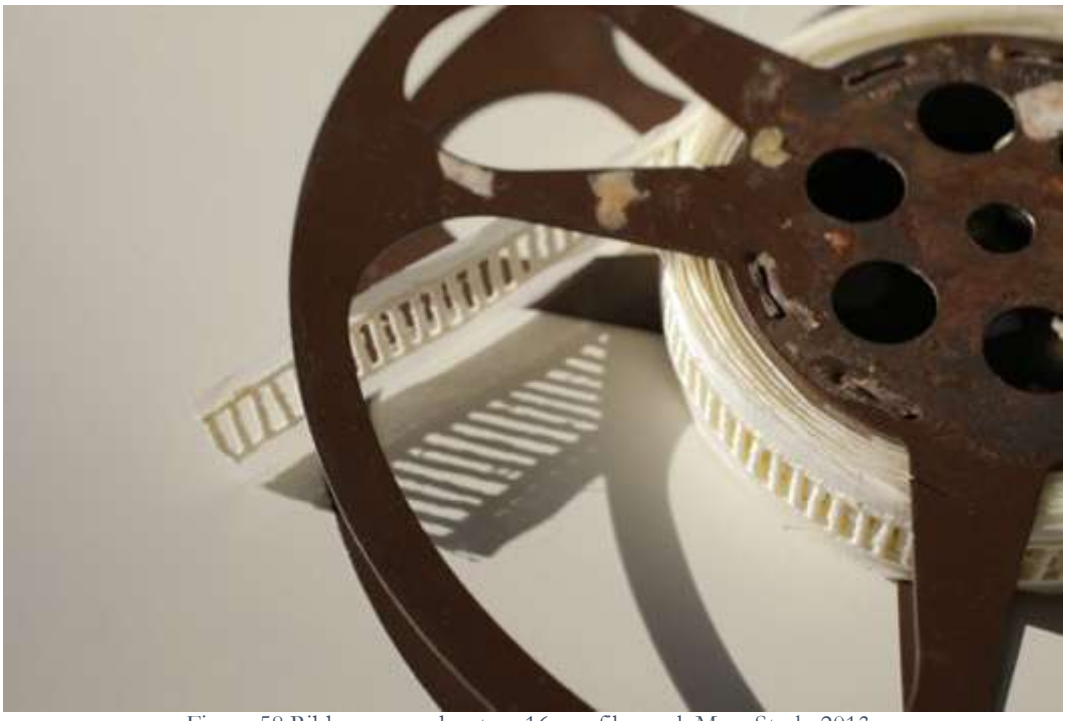


Figure 58.Ribbon wound onto a 16mm film reel. Mary Stark, 2013

Figure 59.Clear film leader spliced to fabric ribbon. Mary Stark, 2013

Figure 60.Fabric and lace ribbons hanging on a film trim bin at LIFT. Mary Stark, 2014

Figure 61.The editing rack in a performance of *Film as Fabric* at Film Material presents...Bristol Experimental and Expanded Film at Rogue Studios, Manchester. John Lynch, 2016

The sound of *Reel Time*

When Nicolson brought the sewing machine and the film projector together, their similar sounding mechanisms could be heard. Although *Reel Time* did not feature optical sound, a range of unamplified live sounds were created that Nicolson has highlighted as important and has recently suggested have been overlooked (Curtis, 2002, p. 2). Using accounts by Nicolson and Sparrow, as well as my experience of creating an expanded cinema performance, I have analysed the sound in *Reel Time*. I also gained insights into Nicolson's approach to working with sound from participating in a re-staging of her performance *Matches (*1975)[57]. I now define the main sonic elements, their characteristics and the way they combined together in *Reel Time:*

Mechanical noise:

Sparrow emphasised that the room was, "full of noise," and describes, "the steady whirring of the projectors," and, "the hum of the sewing machine" (Sparrow, 2005: online). The sounds of the mechanisms of the sewing machine and two film projectors, one to project the film and another to cast Nicolson's moving shadow, layered together loudly.

Sounds made by the material of film:

This noisiness extended beyond the dense sound of machinery to the incidental sounds made by film as it moved through space, and was handled, stitched, spliced, and projected until it loudly snapped. Film was "clacking" and "clicking" through pulleys and machinery, "slithering" along the floor, as well as "clattering" and "slipping" (2005: online), before it broke altogether with a deafening snap that Nicolson has emphasised as affecting her whole body, "like a physical shock" (Curtis, 2002, p. 2).

Voice:

Two voices marked the beginning and the end of the performance. Nicolson asked for volunteers to read, "from separate instruction manuals: 'how to thread a sewing machine' and 'how to thread a film projector" (Sparrow, 2005: online). Other than this, it is not clear exactly how she introduced *Reel Time*, but the end of the performance was signalled

[57] by Collective-Iz at Apiary Studios in London in 2015

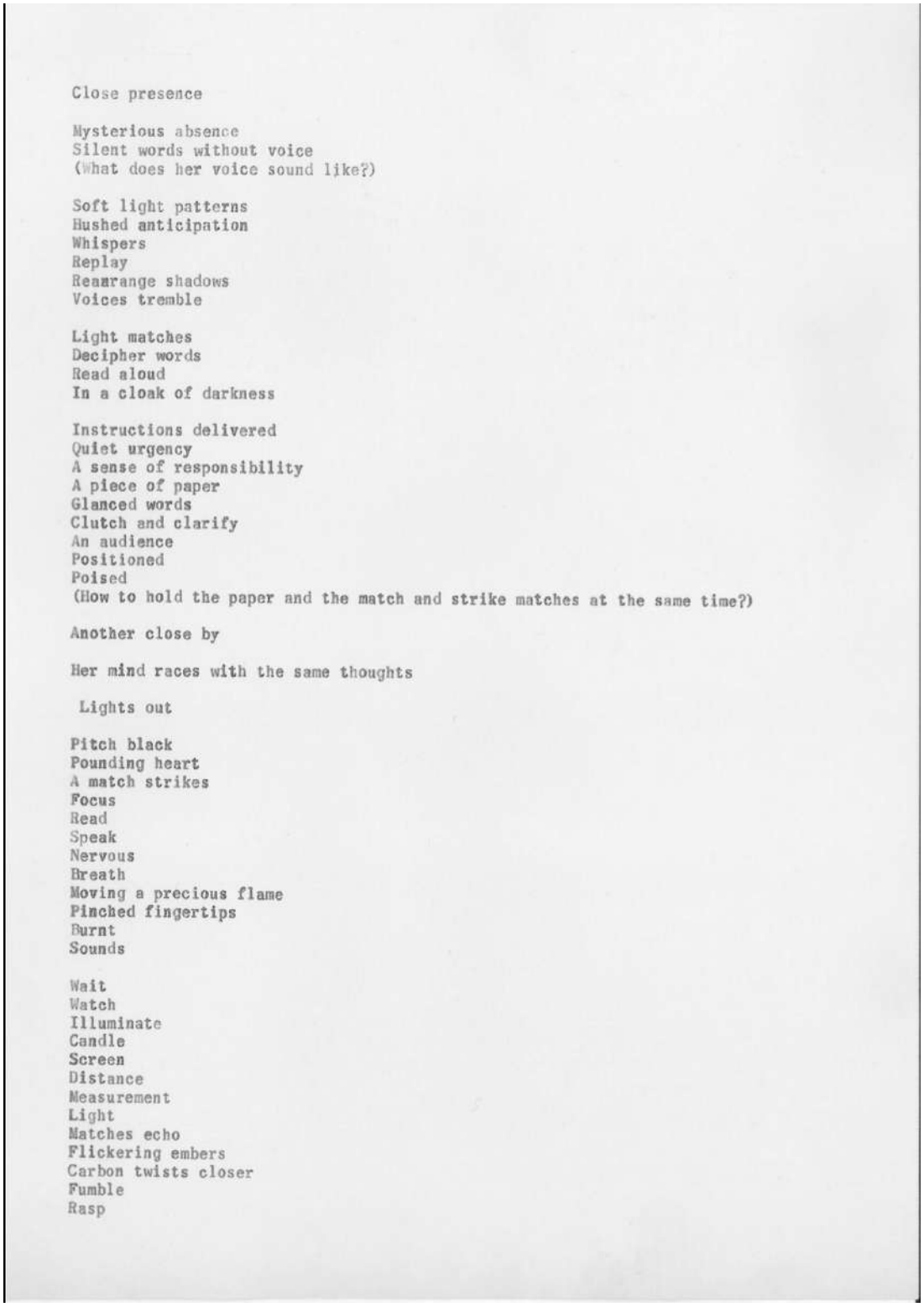
by the moment, "when the projectionist announces that it (film) can no longer pass through the projector" (Sparrow, 2005: online). Nicolson instructed the volunteers to read, "just now and then," "a phrase or two when they felt like it" (Curtis, 2002, p. 2). These voices were heard amidst the multiple layers of mechanical noise and the sounds of the film moving through the room.

During quieter pauses, after the film loop had snapped, the voices reading could be heard more clearly, "in the lull, while the projectionist mends the break, one can discern the voices of two audience-members as they read occasionally throughout the performance (Sparrow, 2005: online). The role of the people reading was, "leisurely" and "gentle", but at the same time "very important" (Curtis, 2002, p. 2). Nicolson's emphasis on the significance of the people reading shows that she intended to highlight connections between textile practice and experimental filmmaking. By working with both the sewing machine and the film projector at the same time their similar mechanical sounds could be clearly heard. The people reading from the film projector and the sewing machine manuals further demonstrated their similar terminology.

Nicolson used sound in expanded cinema performance as a powerful strategy to connect textile practice and experimental filmmaking. This informed my practice of presenting optical sounds from fabric and stitch patterns in *Film as Fabric*. Unlike *Reel Time, Film as Fabric* has frequently involved amplified sound. I recognised this key difference when I participated as one of two volunteers in the re-staging of Nicolson's expanded cinema performance *Matches* (1975) by Collective-Iz at Apiary Studios in London in 2015. *Matches i*s performed in complete darkness and involves two volunteers from the audience being given a packet of matches and a copy of the same text to read (on candle power and the fading of light). Positioned some distance apart, they read alternately from the point they left off in their previous turn for as long as the flame lasts from each match they light"(Nicolson, 1975: online).

My experience of re-staging *Matches* brought substantial insight into how Nicolson's performances pay close attention to a task that must be completed from beginning to end, and feature tiny, mostly unnoticed, incidental sounds. The strike and flare of a match, an

intake of breath, voices in darkness, the tinkle of a burnt matchstick as it falls to the floor. These are unamplified sounds on a human scale that must be listened to carefully.



Close presence

Mysterious absence
Silent words without voice
(What does her voice sound like?)

Soft light patterns
Hushed anticipation
Whispers
Replay
Rearrange shadows
Voices tremble

Light matches
Decipher words
Read aloud
In a cloak of darkness

Instructions delivered
Quiet urgency
A sense of responsibility
A piece of paper
Glanced words
Clutch and clarify
An audience
Positioned
Poised
(How to hold the paper and the match and strike matches at the same time?)

Another close by

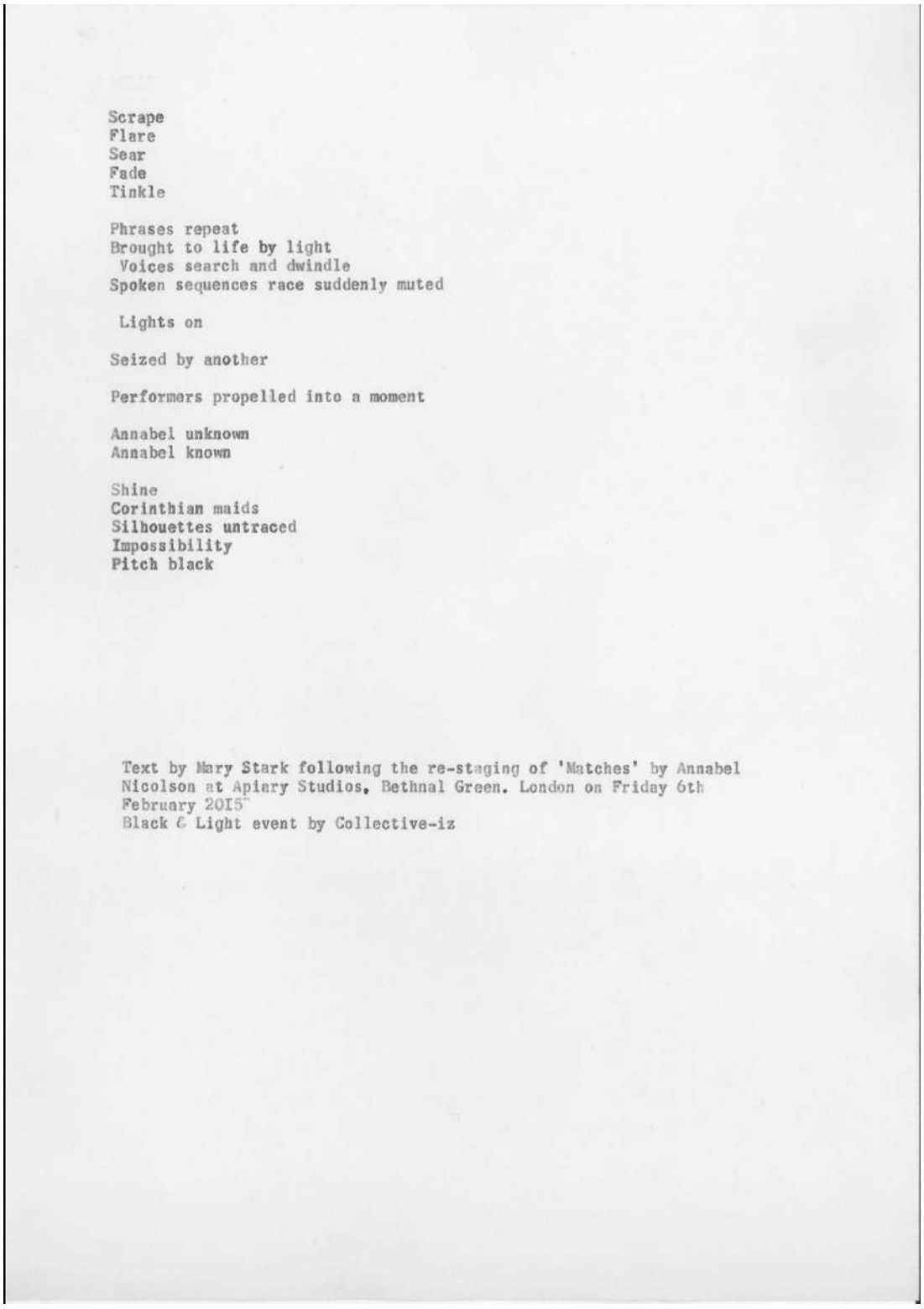
Her mind races with the same thoughts

Lights out

Pitch black
Pounding heart
A match strikes
Focus
Read
Speak
Nervous
Breath
Moving a precious flame
Pinched fingertips
Burnt
Sounds

Wait
Watch
Illuminate
Candle
Screen
Distance
Measurement
Light
Matches echo
Flickering embers
Carbon twists closer
Fumble
Rasp

Figure 62.Page one of text written after being chosen as a volunteer in a re-staging of Nicolson's *Matches* (1975) by Collective-Iz at Apiary Studios in London. Mary Stark, 2015



Scrape
Flare
Sear
Fade
Tinkle

Phrases repeat
Brought to life by light
Voices search and dwindle
Spoken sequences race suddenly muted

Lights on

Seized by another

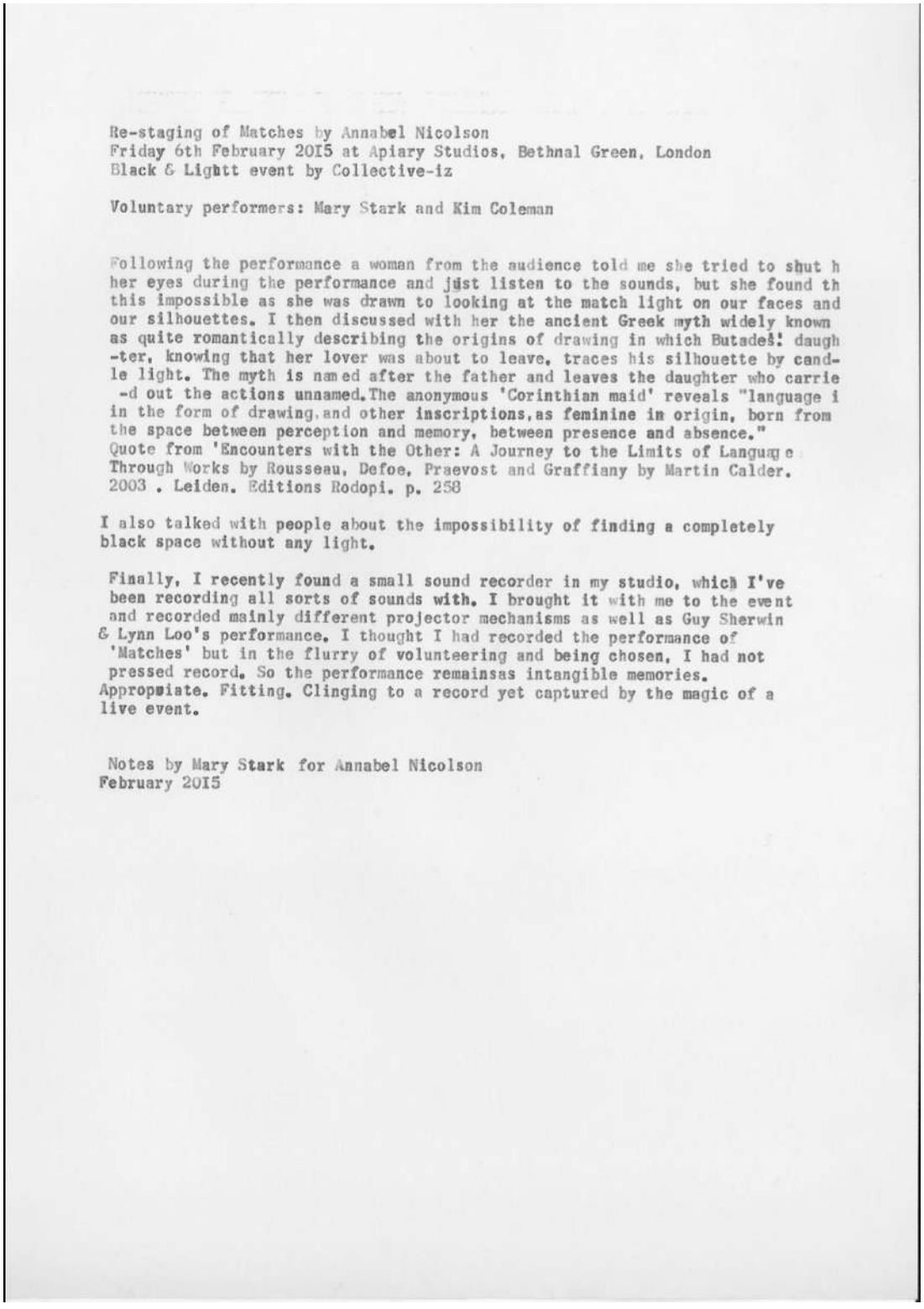
Performers propelled into a moment

Annabel unknown
Annabel known

Shine
Corinthian maids
Silhouettes untraced
Impossibility
Pitch black

Text by Mary Stark following the re-staging of 'Matches' by Annabel Nicolson at Apiary Studios, Bethnal Green. London on Friday 6th February 2015
Black & Light event by Collective-iz

Figure 63.Page two of text written after being chosen as a volunteer in a re-staging of Nicolson's *Matches* (1975) by Collective-Iz at Apiary Studios in London. Mary Stark, 2015



Re-staging of Matches by Annabel Nicolson
Friday 6th February 2015 at Apiary Studios, Bethnal Green, London
Black & Lightt event by Collective-iz

Voluntary performers: Mary Stark and Kim Coleman

Following the performance a woman from the audience told me she tried to shut h her eyes during the performance and just listen to the sounds, but she found th this impossible as she was drawn to looking at the match light on our faces and our silhouettes. I then discussed with her the ancient Greek myth widely known as quite romantically describing the origins of drawing in which Butades' daugh -ter, knowing that her lover was about to leave, traces his silhouette by candle light. The myth is named after the father and leaves the daughter who carrie -d out the actions unnamed. The anonymous 'Corinthian maid' reveals "language i in the form of drawing, and other inscriptions, as feminine in origin, born from the space between perception and memory, between presence and absence."
Quote from 'Encounters with the Other: A Journey to the Limits of Language Through Works by Rousseau, Defoe, Praevost and Graffiany by Martin Calder. 2003 . Leiden. Editions Rodopi. p. 258

I also talked with people about the impossibility of finding a completely black space without any light.

Finally, I recently found a small sound recorder in my studio, which I've been recording all sorts of sounds with. I brought it with me to the event and recorded mainly different projector mechanisms as well as Guy Sherwin & Lynn Loo's performance. I thought I had recorded the performance of 'Matches' but in the flurry of volunteering and being chosen, I had not pressed record. So the performance remainsas intangible memories. Appropriate. Fitting. Clinging to a record yet captured by the magic of a live event.

Notes by Mary Stark for Annabel Nicolson
February 2015

Figure 64.Page three of text written after being chosen as a volunteer in a re-staging of Nicolson's *Matches (*1975) by Collective-Iz at Apiary Studios in London. Mary Stark, 2015

This first-hand experience of *Matches*, which was made by Nicolson just two years after *Reel Time*, informed the creation of a new expanded cinema performance, Film as Fabric: an experiment, which aimed to more closely re-imagine *Reel Time* to gain deeper understanding of the core sonic elements involved: mechanical noise, the sound of film and voice. It took place at Rogue Artist Studios in Manchester as part of a night of collaborative film performance with David Chatton Barker. This work had intentional similarities with *Reel Time*:

- Preparation involved setting up the equipment and there could be no rehearsal
- A thirty-foot loop of clear film leader was laced in the film projector and my sewing machine, which I used to puncture the film with the unthreaded needle
- The audience handled the film loop helping it move through the space
- The sounds of the sewing machine and the film projector mechanisms layered with the voices of two volunteers reading
- The performance lasted until the film loop was so damaged that it could no longer be projected

And distinct differences:

- Nicolson used her hand crank sewing machine, whereas my sewing machine was electric
- Nicolson used two film projectors in *Reel Time*, but I only used one
- Nicolson's *Reel Time* was entirely unamplified, but I used contact microphones to amplify the film projector and sewing machine mechanisms and a handheld microphone to amplify my own and the volunteers' voices
- Two volunteers read from a film projector and a sewing machine manual in *Reel Time,* but I asked two volunteers to read from handwritten letters
- In *Reel Time* the two people read aloud intermittently at the same time, but as I had one microphone the two letters were read in full one after the other
- Nicolson stitched a film loop showing herself sewing film at the sewing machine, whereas I used clear film leader that I had pre-punctured in the soundtrack area with the unthreaded sewing machine needle[58]

[58] This was unnecessary and as the performance went on its presence diminished. As Nicolson's *Reel Time* did not involve optical sound, this was appropriate.

Like *Reel Time*, I asked for two volunteers, one to read a letter each. There was only one microphone, so they had to take it in turns. Both *Reel Time* and *Matches* involved two people reading similar texts or the exact same words so that they were suddenly silenced, interrupted, heard more loudly, and slipped in and out of sync with one another. In *Film as Fabric: an experiment,* the decision that the readers would read one after the other overlooked this. However, I gave the volunteers handwritten letters and at times they struggled to read them, so their voices stuttered and faltered, echoing the film projector and the sewing machine, which would work together for a time and then stop.

Nicolson's voice is not mentioned in any descriptions of *Reel Time*. However, my voice became a spontaneous aspect of *Film as Fabric: an experiment*. At the start I spoke directly to the audience without amplification or a pre-written script. David was the projectionist for *Film as Fabric: an experiment*. At different points, I asked him to check how the film projector was running and shouted across the room to ask him to focus the lens. As I stitched the film loop on the sewing machine, I occasionally had to interject to give the volunteers the word they were struggling to read or the sentence they were trying to make sense of.

Similar to *Reel Time*, *Film as Fabric: an experiment* created incidental sounds. There were rustling sounds as lengths of film were passed to the projectionist, small clicks, clunks and pings as the film was spliced and laced through the film projector and the sewing machine again. Occasional coughs and murmurs from the audience, the sound of people moving around carefully, as well as fragments of film crunching under foot.

Beyond gaining knowledge of the sound of *Reel Time*, this re-imagining of Nicolson's work also deepened my thinking about the way that people had to handle the loop of film to help it move it through the room. In *Film as Fabric: an experiment* they held the film off the floor and collected it when it snapped, eagerly moving out of their seats. They took their role seriously, working together to keep the loop travelling through the room. The photographs of people holding the loop of film show how their bodies interrupted the light from the projector. This has not been described in accounts of *Reel Time*, therefore my work suggests that there are still further elements of Nicolson's performance that are unexplored.

Figure 65.*Film as Fabric: an experiment* at Rogue Artist Studios in Manchester. Sam Meech, 2015

Figure 66.*Film as Fabric: an experiment* at Rogue Artist Studios in Manchester. Sam Meech, 2015

Stitched rhythms and pitched patterns

My investigation into optical sounds produced from fabric and stitch patterns connects textile practice and experimental filmmaking in new ways. It also builds on Nicolson bringing together the sewing machine and the film projector and treating film as fabric in *Reel Time*. My work in this area was driven by the knowledge that, although *Reel Time* did not involve optical sound, sound was a significant aspect. The filmmaking technology of optical sound transforms visual information in the soundtrack area of the filmstrip into sound when it is projected[59]. On a strip of 16mm film, the optical soundtrack is a 2mm area next to where the photographic images appear. In 2013, I participated in a workshop with Guy Sherwin and Lynn Loo at N.o.w.here in London, which introduced the practice of creating optical sounds in two different cameraless ways: by directly working with the filmstrip and creating photograms in the dark room, as well as how to present optical sound as expanded cinema performance using multiple film projectors and amplified sound. Since then I have primarily examined how to produce optical sounds in two ways, which I define as stitched rhythms and pitched patterns: 1) puncturing and stitching clear film leader with the unthreaded and threaded sewing machine needle, and 2) by making photograms of patterned lace ribbons.

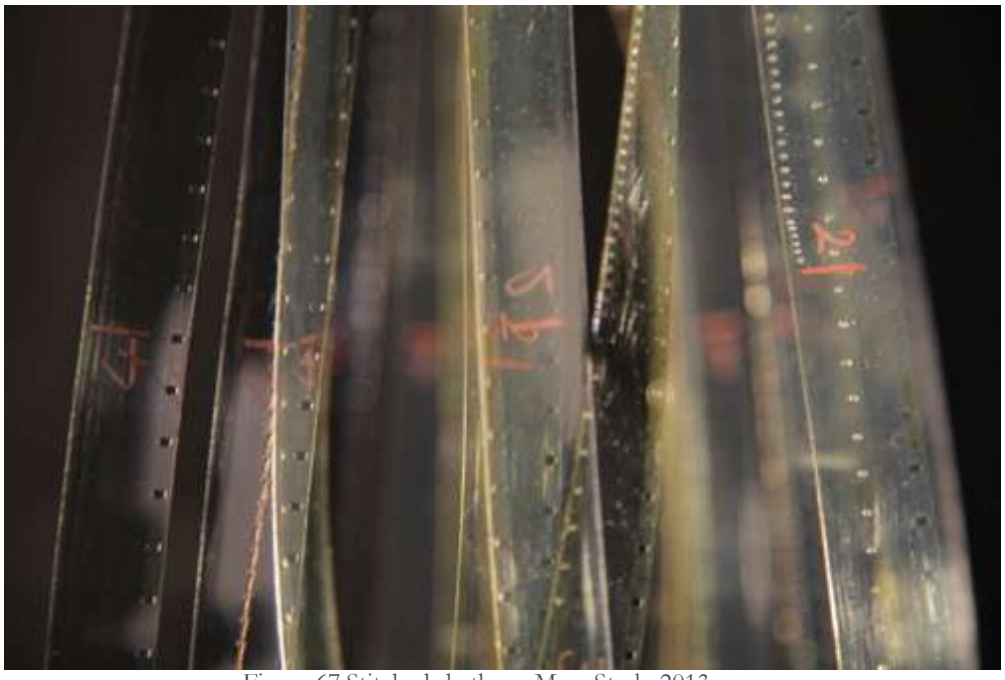


Figure 67.Stitched rhythms. Mary Stark, 2013

[59] "The optical soundtrack is illuminated in the projector by the exciter lamp as it passes over the sound head. The sound head consists of a photodiode which converts fluctuations in light into electronic pulses to reproduce the sound" (*Other Film: Optical Sound*, 2012: online).

Stitched rhythms are made through the direct filmmaking method of piercing holes at regular intervals in the soundtrack area of clear film leader with the unthreaded sewing machine needle, which is then spliced into a loop. I make clear leader by bleaching the photographic content from already exposed films[60]. The closeness of the holes dictates the tempo of the rhythm produced. I have tested puncturing every 24, 20, 16, 12, 8, 6, 4, 3, 2 and 1 frames, as well as two 'stitches' to a frame. The further the holes are apart, the slower the rhythm created. When the holes become close enough, at two per frame, they become a continuous low pitch. A variety of pitches can also be created by adjusting the stitch length on the sewing machine and stitching clear film leader in the soundtrack area of the filmstrip with the threaded or unthreaded sewing machine needle. The longer the stitch length, the lower the tone, with the highest pitches resulting from stitches being as close together as possible before the filmstrip tears. Holes at intervals of 3 up to 6 frames create pattering rhythmic sounds.

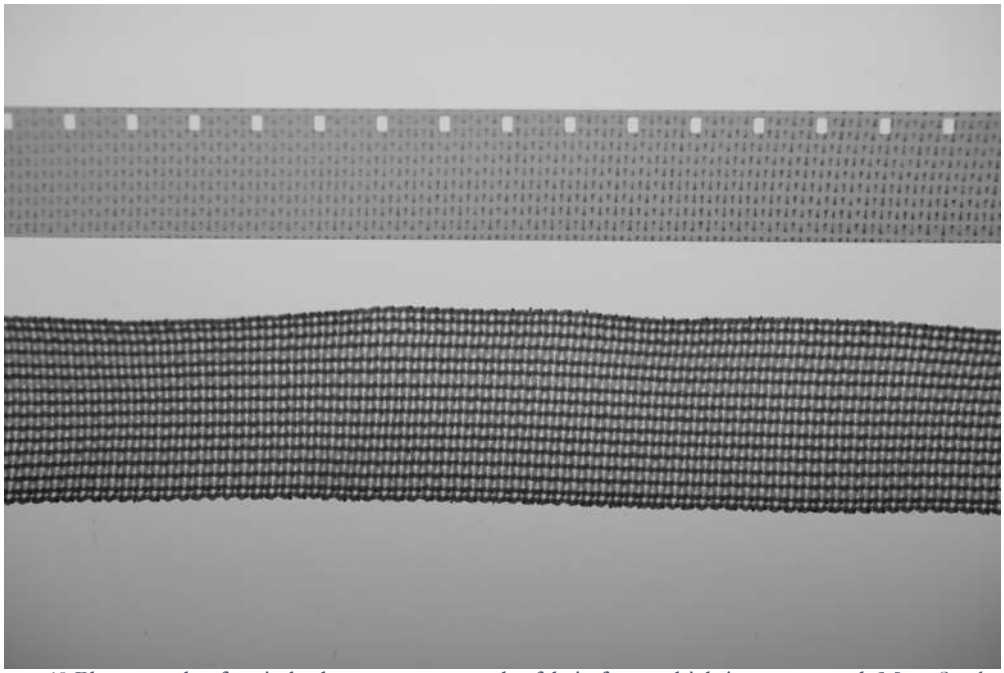


Figure 68.Photograph of a pitched pattern next to the fabric from which it was created. Mary Stark, 2014

The second approach taken to creating optical sounds has involved creating black and white photograms from over forty different patterned lace ribbons, tested for opacity, texture and construction. I have worked with Orwo PF2, a fine grain print stock with an ISO of 6, which is similar to photographic paper. It creates high contrast black and white

[60] I buy found footage for this purpose. It is considerably cheaper than buying clear leader from a film supplier. I use fresh lengths for each performance, which is then re-cycled as leader for other films.

images and can be worked with under red light[61]. To make a photogram in the dark room, I first unwind a length of film and use scissors to cut a piece about the measurement of my forearm. I check which side is coated in emulsion by licking my lips and briefly kiss the filmstrip - the emulsion is on the side that my lip sticks to. I then choose a lace ribbon and place it on the film before using a piece of clear glass to press the two materials down flat, which results in defined photograms and clear optical sounds. It would be difficult to work with large sheets of glass alone in the darkroom, so I expose small pieces of film which have a duration of approximately 1.5 seconds and splice them together into longer lengths to create sustained optical sounds.

I process the photograms in photographic trays[62] so I can see the image developing. Financial necessity and avoiding wasting film have influenced my method of making multiple small tests with short pieces of film. It is a quick way of getting results and checking the photographic chemistry before exposing and processing more film. There is a fresh sense of magic each time I watch a photogram appear. As each lace ribbon is slightly different, there are variations in the depth of the blacks in the photograms of fabrics, but these inconsistencies emphasise the tactile process. I enjoy processing each piece, nurturing each precious foot of film into existence by hand.

Making photograms from lace and fabric ribbons has shown how the material specificities of fabric translate into optical sound and moving images. When photograms of fabric are projected, the materiality of each fabric is magnified and animated. A humble everyday material is elevated to the star of the screen. Dark coloured lace ribbon creates high contrast graphic black and white images that produce defined sounds. Fabric made from fine threads with a regular grid-like construction produces clear tones. Cloth made with thicker course threads in irregular formations creates a rougher sonic quality.

The method of working with small pieces of ribbon and short lengths of film shows a linguistic meeting point between textile practice and film editing because they can both be described as 'trimmings'. To 'trim' a garment means to add decorative additions, usually to an edge or along a hem. But to 'trim' also refers to the act of cutting material

[61] I have also worked in smaller amounts with AGFA ST8 and Kodak 7302
[62] I use Rodinal developer and Kodak T Max fixer to

down to a required size or shape. Similarly, in analogue film editing, a 'trim' describes a small section of a shot that has been cut out (Collins Dictionary, 2019: online).

Applying the embroidery practice of sampling to the production of moving images and optical sounds also creates new links between textile practice and experimental filmmaking. Sampling began as a way of copying and storing embroidery stitches in the sixteenth and early seventeenth century before imagery was available to copy from books. Early samplers were pieces of linen stitched with, "a storehouse of motifs," and defined as an, "exampler of a woman to work by" (Parker, 2010a, p. 85). They took the form of a 'spot' sampler, which involved stitching small test areas of patterns on a piece of fabric at random, or a 'band' sampler, which featured strips of repeating patterns. The embroiderer then used their sampler to create embroidered designs.

My use of sampling in experimental film builds on a recent collaborative project called *Sampler-Culture Clash*, [63]which brought together embroidery and music production after identifying it as a common technique common in both fields. Sampling music involves selecting and looping a small section from an already existing recording to generate a new composition[64]. *Sampler-Culture Clash* recognised that 'spot' sampling in embroidery is similar to building up a library of samples to make music, while 'band' samplers are visually similar to the appearance of multiple layers of soundtracks in sound editing software, with each band of stitched pattern relating to different elements in the music, such as the drum beat, bass line or vocals (Littler, 2008: online). This idea is extended by the first stage of this investigation, which involved examining optical sounds and moving images with recourse to fabric and stitch patterns to produce a visual and sonic palette, consisting of stitched rhythms of different speeds and a range of low, medium and high pitched patterns, to be presented as expanded cinema performance.

[63] Initiated by the artist David Littler in 2008 with the Victoria & Albert Museum. It began in association and resulted in work combining stitch, sound, word, pattern and performance.

[64] Sampling began in the 1940s with the French composer Pierre Schaeffer's musique concrète sound collages. First with records, and then with loops of reel-to-reel tape, he recorded kitchen utensils, trains and the human body before looping them to make experimental music.

Figure 69. Spot Sampler, Museum no. T.230-1929. Given by Mrs Lewis F Day to the V&A. © Victoria and Albert Museum, London, about 1600-1650. [online]

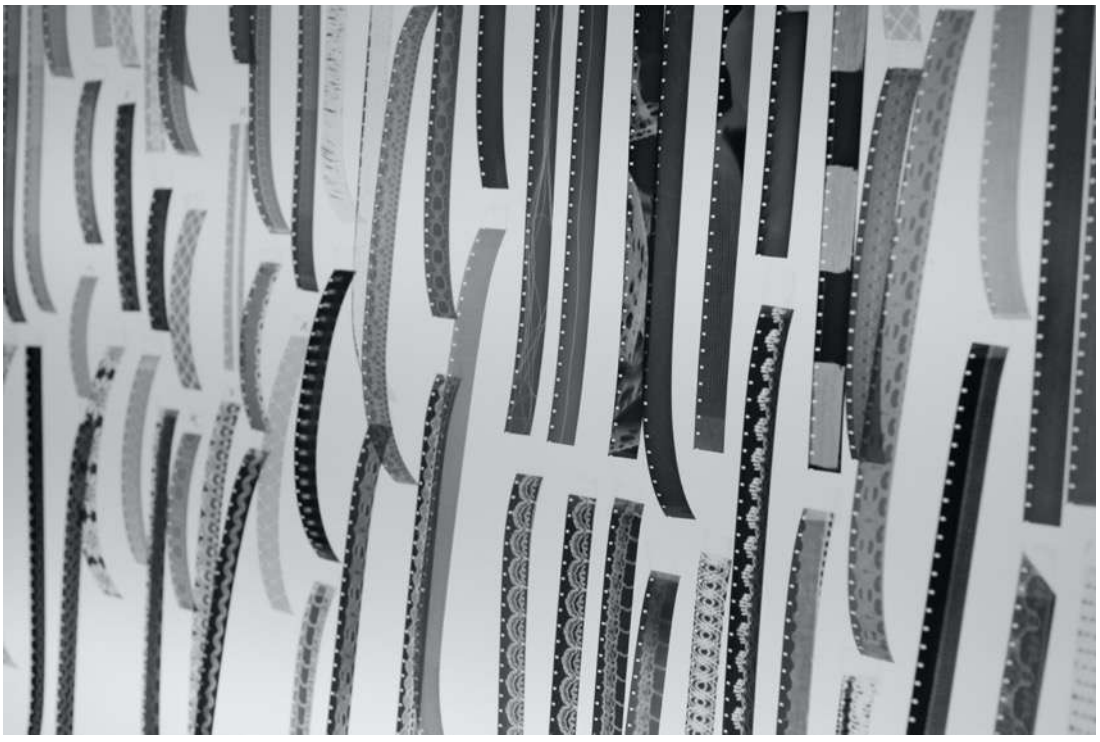


Figure 70.Pitched patterns on a light box at LIFT. Mary Stark, 2014

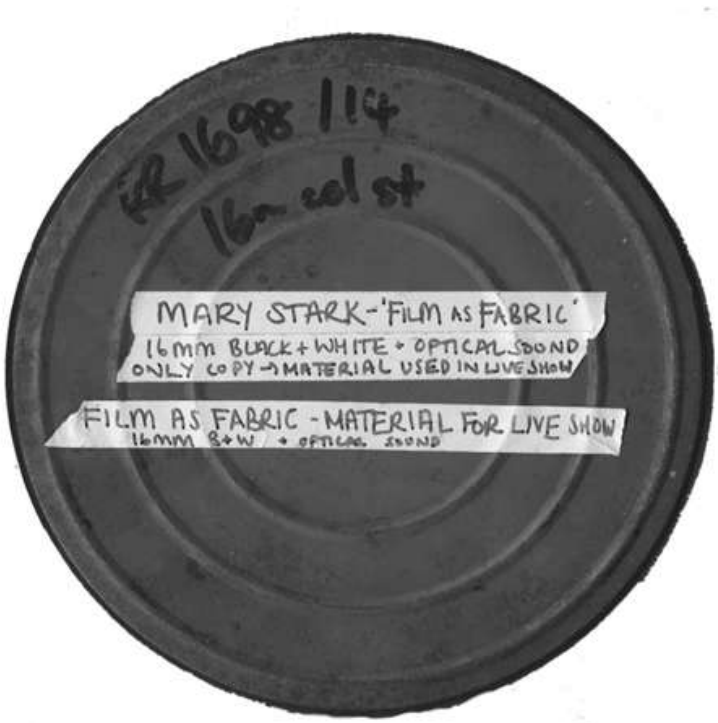


Figure 71.The reel of pitched patterns used in Film as Fabric stored in a film can. Mary Stark, 2018

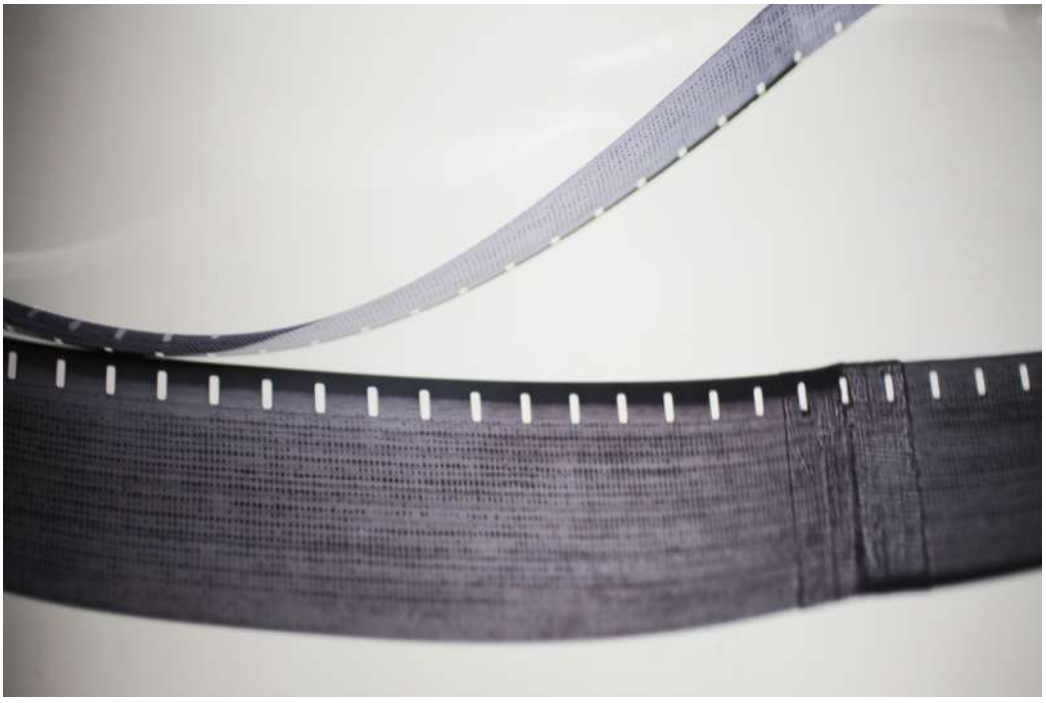


Figure 72.A pitched pattern -the photogram covers the entire filmstrip across the soundtrack and sprocket holes. Mary Stark, 2013

Traditional embroidered samplers use cloth as the grounding for small stitched tests, but my samples are strips of film, so I organise them on a film trim bin[65] , and cut and splice them at my edit bench. I splice them into a single reel and store them in a film can (fig.71). But when projecting this reel, the photograms of patterned fabrics are such short durations that it is difficult to watch and listen to each one. I have viewed and edited them on a Steenbeck editing table, which enabled repeated looking and listening to the photograms at different speeds. However, I also telecined the photograms and worked with them digitally using video editing to isolate each photogram[66] and hear its sonic qualities[67].

However, the main focus throughout the study has been physically organising and editing the optical sounds to define a specific visual and sonic palette. Key tools are a 16mm splicer, splicing tape, rewind arms, a light box, film reels and a film projector. This simple set up was informed by working with analogue editing equipment and then setting up my own edit bench, as well as historical research into the practice of film cutters in early cinemas, specifically the description of the pre-mechanical work carried out by women up to the late 1920s, who only used the basic tools of a pair of scissors, a magnifying glass and their bodies (Murch, 2011, p. 75).

In my earliest experiments making photograms I used a photographic enlarger but, driven by the aim of simplifying my method and using my body as a resource, I have mostly used a small handheld torch to expose pitched patterns. After consideration of the different material qualities of each lace ribbon, I affect the exposure by the distance of my hand from the filmstrip and the length of time I decide for the exposure. The transformation of fabric patterns into optical sound and moving images ultimately relies upon the mechanism of the film projector, but their visual and sonic qualities are the result of a photographic process negotiated through my body and carried out by hand.

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[65] While at LIFT I came across 'film trim bins' in the editing rooms Since then the 'film trim bin' has become an essential tool in my studio-based practice and expanded cinema performances. This is further discussed on page.

[66] This involved syncing the sound with the moving image of the fabric that produces it because in the film projector the sound is head 26 frames after the image is seen.

[67] The digitised film can be played repeatedly without signs of wear to the filmstrip

The creation of pitched patterns develops a camera-less technique first pioneered in the 1920s by the French artist Man Ray, in his 35mm film *La Retour a la Raison* (1923), which interrupted shots made conventionally with a camera with photograms of drawing pins, springs, salt and pepper, that were exposed on film by quickly turning a light bulb on and off. Since then, camera-less filmmaking has been a way to for artists to develop alternative languages for film outside of industrial practice, although, "it has been largely neglected by film studies and viewed as marginal to experimental film theory" (Smith, 2012, p. 42).

Camera-less techniques are important to my method for both practical and conceptual reasons. They took on increased conceptual significance in light of my research into the camera's mechanics and terminology, which, as discussed in chapter one, is associated with guns, violence and possession. In addition, my method has been informed by Laura Mark's theory of the haptic and the optic (Marks, 2002, p. xvi). The camera provides specific optic modes of looking from a single distanced viewpoint, dictated by mechanical components and precise systems measuring time, light and space. The distance created by the camera is key to the way that commercial cinema draws the audience into an illusory narrative, whereas my haptic camera-less method aims to highlight the tactility and materiality of film, and its similarity to fabric.

Pitched patterns visually appear as cloth or ribbon, rather than a strip of film with individual frames. Fabrics have been exposed so that they cover not just the image and the optical soundtrack areas, but often also the sprocket holes as well. This extends the tradition of experimental filmmakers disregarding the frame line by treating film as a strip or length to work along or across, rather than being confined to the small area allocated for individual frames (Hamlyn, 2003, pp. 57–71). On a practical level, frame lines that cross the soundtrack area[68] create a regular recognisable purring optical sound, whereas my camera-less method results in optical sounds uninterrupted by frame lines.

[68] Created by a super-16mm camera

Chapter 4: Conclusion

After identifying that overlaps between textile practice and experimental filmmaking most occur in analogue film editing equipment, such as the film trim bin, I have created new connections between the fields by combining the materials and apparatus of film editing and dressmaking. This has resulted in the creation of hybrid objects and tools, most notably the 'editing rack', and a palette of moving images and optical sounds that highlight existing relationships and create new links between the fields. These objects demonstrate Sennett's idea of the domain shift and show how new practice can be generated by applying a tool or technique from one discipline to another.

Nicolson's act of machine stitching film performed Sennett's domain shift perfectly. This analysis recognises that she also used sound in expanded cinema performance to connect textile practice and experimental filmmaking. Hearing the similar sounding mechanisms and terminology of the sewing machine and the film projector is identified as an important strategy in highlighting their relationships. Analysis of sound in *Reel Time* defined three core sonic areas in the performance: mechanical noise; sounds made by the filmstrip itself; and voice.

Practice-based examination of Nicolson's approach to sound has shown that she frequently highlighted incidental, unamplified, almost unnoticeable sounds. The palette of sounds made with the materiality of film in *Reel Time*, clacking-clicking-slithering-clattering-slipping-snapping, could be seen as a precursor to the late American artist Tony Conrad's expanded cinema performance and seminal experimental music piece *Bowed Film* (1974). In this work, Conrad placed the production of sound from film as the primary focus and took film into a musical context, replacing the film projector with a violin bow, which he used to 'play' a short loop of film that was amplified with a microphone. Although the sounds made with film in *Reel Time* were incidental, both Nicolson and Conrad's noisy performances are linked by emphasis on the musicality, as well as the materiality, of analogue film.

Re-imagining *Reel Time* through expanded cinema performance, with the aim of gaining insight into the sound, also unexpectedly offered new understanding about the way that people handled film in the performance and suggested that their bodies created dramatic

shadows. This is an aspect that has so far not been identified and shows that *Reel Time* still demands further examination.

My efforts to bring the sewing machine and the film projector together and combine the materials and apparatus of textile practice and experimental filmmaking led to producing 'stitched rhythms' and 'pitched patterns', which transform fabric and stitch into optical sounds and moving images. To reiterate, stitched rhythms involve puncturing the soundtrack area of clear film leader with the unthreaded sewing machine needle to create a variety of pattering beats of different speeds. Pitched patterns are produced by making photograms from fabric and lace ribbon and result in a range of textured low, medium and high tones.

Stitched rhythms and pitched patterns have been made by applying the textile practice of sampling to experimental filmmaking as a way to generate an original method. My method builds on that of *Sampler-Culture Clash*, who are at the forefront of investigations into textile practice, sound and performance, and also extends the specific area of experimental filmmaking concerned with direct and camera-less practice by relating it to fabric and stitch. Working with short lengths of ribbon and film, which can both be described as 'trimmings', highlights another linguistic connection between the fields.

This chapter shows how I have created new links between textile practice and experimental filmmaking by combining the materials, apparatus, terminology and techniques of the two disciplines. The creation of a collection of hybrid objects and tools, as well as new intermedia methods of producing optical sounds and moving images develops Nicolson's *Reel Time* and extends the idea that film can be compared to fabric. This practice has been informed by the divergent intermedia historical narrative set out in the previous chapters, and now offers a way to re-contextualise existing artworks and support future exchange between the fields. The next chapter will discuss how stitched rhythms, pitched patterns and the editing rack developed into the expanded cinema performance *Film as Fabric*, as well as a large body of performance documentation, further highlighting relationships between the fields and recognising women's work in the cutting rooms of early cinema.

Chapter 5: *Film as Fabric* an expanded cinema performance

This chapter details the second and third stages of the project, which involved examining how to present the results of the first stage as expanded cinema performance and documentation of numerous iterations. As well as connecting the sewing machine and the film projector, the practice of sampling *Reel Time* recognises and develops subtle peripheral elements of the performance. Bookended between discussion of how my approach to performance preparation and documentation differs from Nicolson's, I will discuss investigation into the following aspects:

- Reflecting light from film
- Relationships between film and the body
- Autobiography
- Site-specificity

After discussing performance preparation, I will explain how this investigation recognises and develops the way that film reflected light in Nicolson's *Reel Time* by working with film as a fabric-like surface and mass of material, lighting it with unspooled film projectors. I will then discuss how making a dress has developed the research and extended theory and practice initiated by *Reel Time*. I will detail my method of presenting stitched rhythms and pitched patterns live, in terms of the process itself; live sound; loops and multiple film projectors. I will then discuss the practice of measuring and wearing film on the body, the way the clothes I wear to perform have taken on importance and informed concerns with autobiography and site-specificity. Thinking about my family history rooted in the north-west of England led to thinking about Nicolson's empowered performance of stitch in *Reel Time* and the way I use my live presence and voice in *Film as Fabric*.

Thinking about voice loops back to concerns with the sound in *Reel Time*. Using the sewing machine to create sound in sites formerly used for textile production led to research into sound associated with textile practice, which resonates with *Reel Time*, and beyond in terms of a later performance *In the Dream I was Wearing Something Red*, (1981-2), Nicolson's interest in waulking songs and time at Greenham Common Women's Peace Camp. Finally, I will consider documentation of *Reel Time* and discuss how this has

informed my approach to documenting *Film as Fabric*, which has emerged as key in highlighting relationships between textile practice and experimental filmmaking through expanded cinema performance.

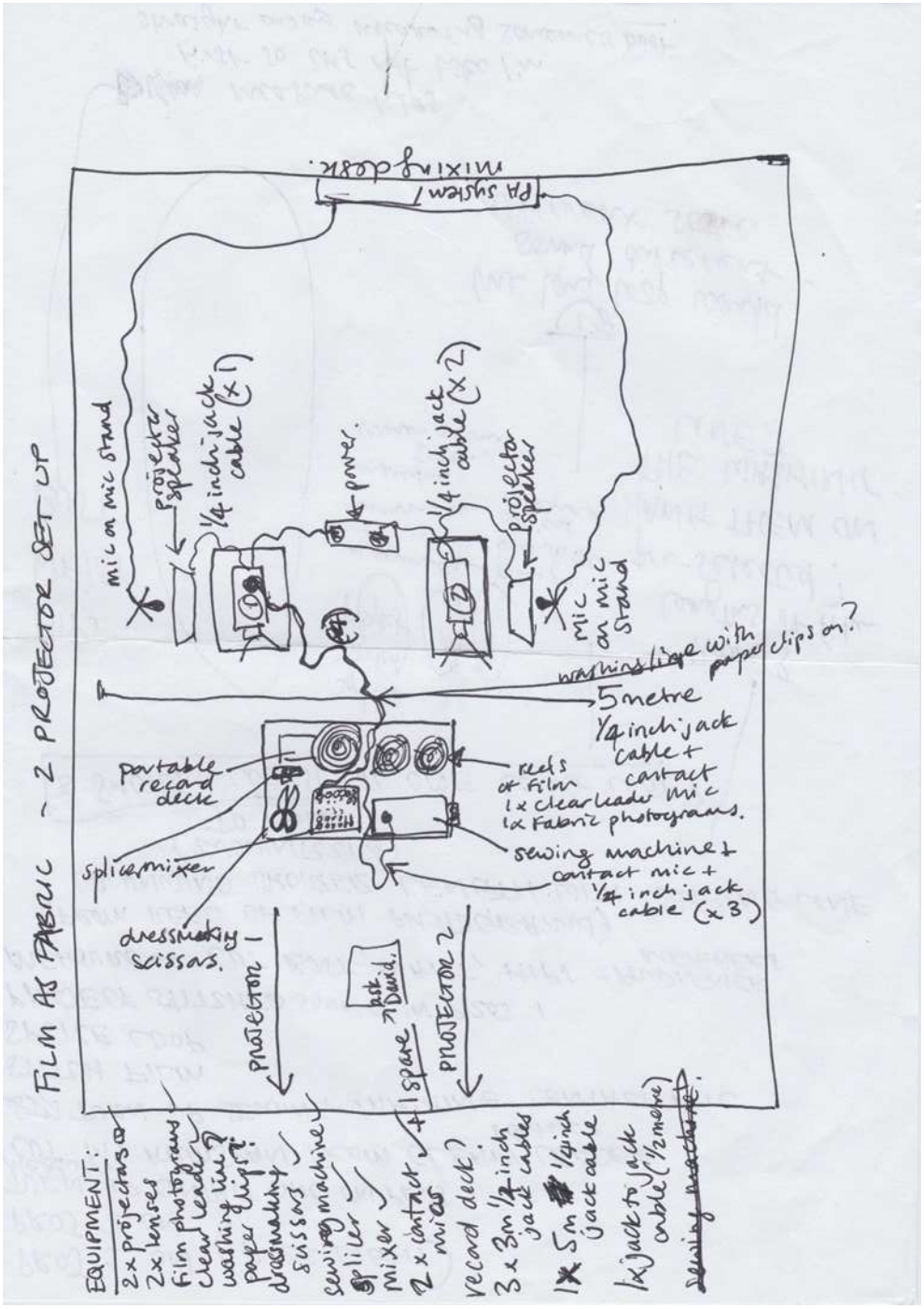

Figure 73.Preparatory drawing for a performance of *Film as Fabric* with two projectors at the Oram Awards, Turner Contemporary, Margate. Mary Stark, 2017

Performance preparation/embracing the unexpected

Nicolson's *Reel Time* was totally unrehearsed and inherently collaborative embracing chance events. She performed it a handful of times in London and did not vary its components. Conversely, I have developed *Film as Fabric* through repeated iterations over seven years across the UK and internationally. My extensive preparation is based upon bringing together and checking the equipment that is needed. I draw, make lists and notes as a way to plan the structure and layout of the performance. These are useful to show technicians and sound engineers and are an important way to visualise the work before it takes place (fig.73).

I have had to re-think aspects of the performance because of restrictions transporting analogue filmmaking equipment. The British Australian artist Sally Golding highlights how touring expanded cinema involves frustrating practical and technical challenges, that give rise to new approaches and ideas, "Performing under pressure is the only real way that I develop my works" (Rogers, 2016, p. 28). Similarly, a new way of working arose through a performance of Film as Fabric at Radio Revolten Festival of International Radio Art[76]. I hired two film projectors and the festival sourced a sewing machine, but there was no way of transporting the editing rack. As a substitute I installed a 'clothesline'[77] from which to hang film between two speakers at the front of the stage. I had hung freshly processed film to dry on a clothes line while at Film Farm in Ontario, as well as indoors at N.o.w.here film lab. The way that both film and fabric are hung to dry on a line is a link between textile practice and experimental filmmaking, which holds particularly strong references to women's labour[78].

[76] In Halle, Germany

[77] Made from string and paper clips with one end opened out into a hook

[78] See an experimental documentary by the American filmmaker Roberta Cantow *Clothesline* (Cantow, 1981: online)

Figure 74.Michele Pearson-Clark hanging film to dry at Film Farm. Jaene Francy Castrillon, 2016

Figure 75.Hanging film on a clothesline between two speakers. Radio Revolten International Festival of Radio Art, 2016 [online]

Reflecting light

Nicolson's performance featured a huge loop of film that she has emphasised for the way it created reflections: "It was very shiny so there was light coming off in all directions, you know around the room little shadows of light" (Curtis, 2002, p. 2). By displaying film as a loop in space and stitching it on the sewing machine, she highlighted its material similarity to fabric. This, combined with her use of a projector as a light source, led to the creation of striking reflections from the surface of the filmstrip. A central preoccupation in this investigation has been to recognise and develop the way that film reflected light in Nicolson's *Reel Time* by working with film as a fabric-like surface and mass of material and lighting it with unspooled film projectors[79].

After using an electric fan in the dark room to dry film, I noticed the way the fan made the film move. I tested unwinding 100ft of film and hanging it on a film trim bin in the light of an unspooled film projector before making it flutter with a fan so that the reflections and shadows moved, which also created a delicate ruffling sound. I presented this practice for the first time as expanded cinema performance at Cine-Cycle, Toronto in 2014. I then made Weaving Film (2015), a performance in which I unspooled, measured and cut black and white film leader, before weaving, then un-weaving it, and winding it back onto a reel[80], all in the light of an unspooled film projector[81].

Weaving Film did not involve amplified sound. This allowed focus on the practice of reflecting light from film. The reel I used, which could hold up to 800 feet of film, slowed down and exaggerated my movements. I intermittently changed the angle of the editing rack to alter the reflections on the walls. A subtle range of incidental unamplified repetitive sounds was produced, which closely align with the sounds of *Reel Time*: the purr of the projector mechanism; the snip of my scissors cutting film; peeling splicing tape from the editing rack and the chink of my ring on the metal film reel.

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[79] This concern began before this study and manifested as installations from woven film lit by unspooled film projectors, *That's Entertainment* (2012) and *A Gift of Sight/The Man Who Knew Too Little/That's Entertainment/The Wonderful Lie* (2012), as well as in my earliest expanded cinema performances *50 Feet of Sound and Light* (2013).

[80] This sequence was informed by the previously mentioned Greek myth of Penelope – see page .

[81] I used a 25mm F1.8 lens to increase the amount of light which shone from a film projector placed at a close distance angled with a e piece of wood specially made by a gallery technician for the installation *That's Entertainment* (2012)

When unspooling a reel of film onto the editing rack in the light of an unspooled film projector, I enjoy the simplicity of a process controlled by my hands alone. I never tire of watching film reflect light. The unwinding has its own slow repetitive rhythm as I repeatedly unfurl the film and hang it up. The shimmering reflections grow as the amount of film increases, until all the film is unwound. Reflecting light from film works best when the performance space is pitch black. When setting up, I always ask for as many of the lights to be turned off as possible so that I can check the placement of the film projectors and the reflected light from film. This act is powerful because the quietness and slowness of unspooling film, combined with the shimmering reflections and shadows it creates, contrasts with the activity and loudness that follows.

Figure 76.Reflecting light from film in *Ghosts of Industries Past*. Caroline Teasdale, 2015

Relationships between film, fabric and the body

Reel Time created links between film, fabric and the body. Nicolson appeared as live artist, moving shadow and photographic representation on the filmstrip, which was stitched on the sewing machine and people were invited to touch. *Film as Fabric* extends these relationships through being informed by the practice of dressmaking. This part of the chapter discusses how making a dress developed the research, in terms of methods of presenting stitched rhythms and pitched patterns live, measuring and wearing film on the body, and giving significance to clothing in expanded cinema performance. I will discuss how I have devised a way to work with stitched rhythms and pitched patterns as expanded cinema performance informed by making a dress, in terms of the process itself; live sound; loops and multiple film projectors. I will then discuss the way the clothes I wear to perform have taken on importance and informed concerns with autobiography, site-specificity and sound associated with textile practice, as well as how these aspects develop Nicolson's *Reel Time*.

Preparatory notes *Film as Fabric*[82]

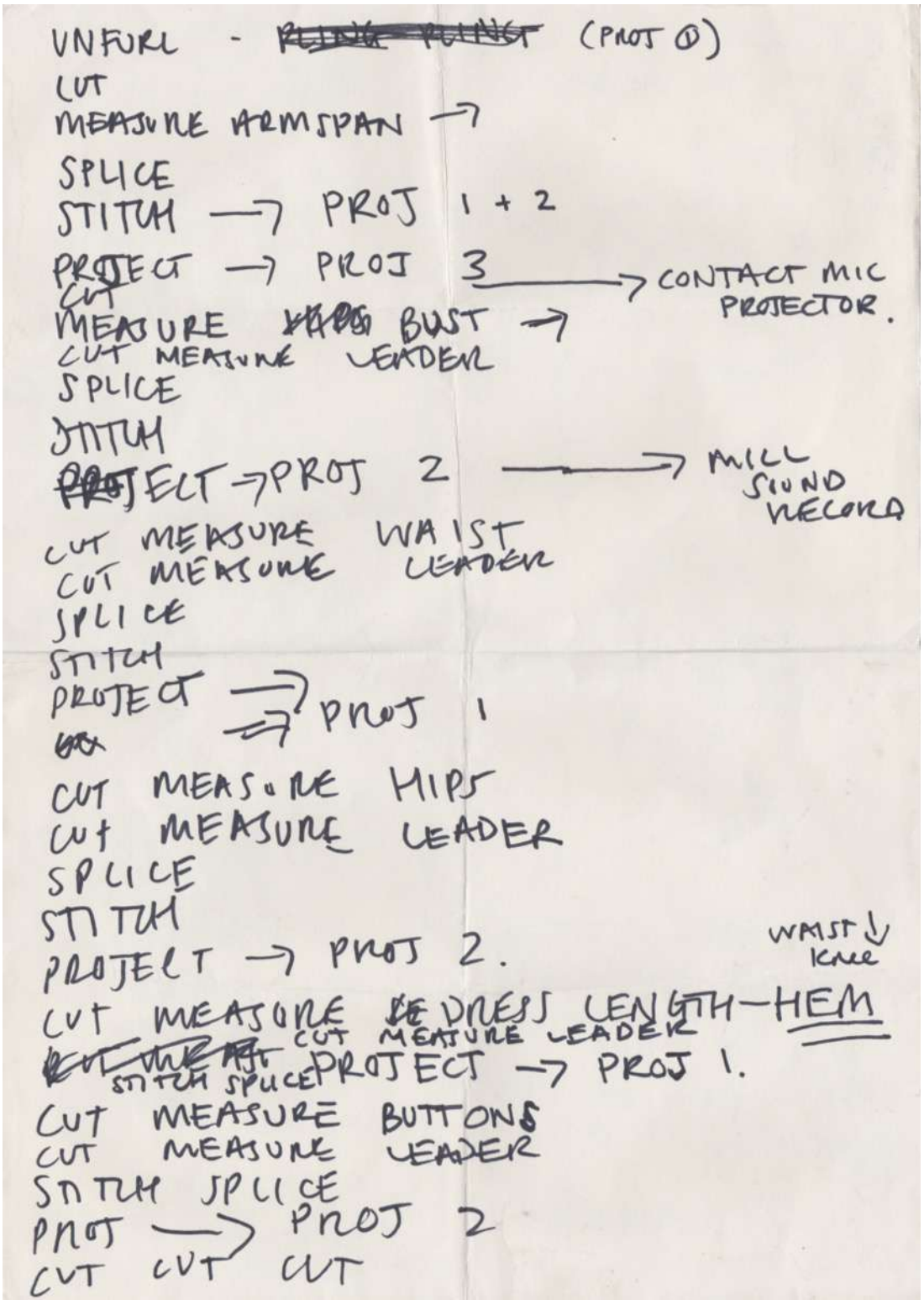


Figure 77.Preparatory notes *Film as Fabric.* Mary Stark, 2016

[82] I brought these notes to most performances, but I would read through them beforehand rather than refer to them during the live event

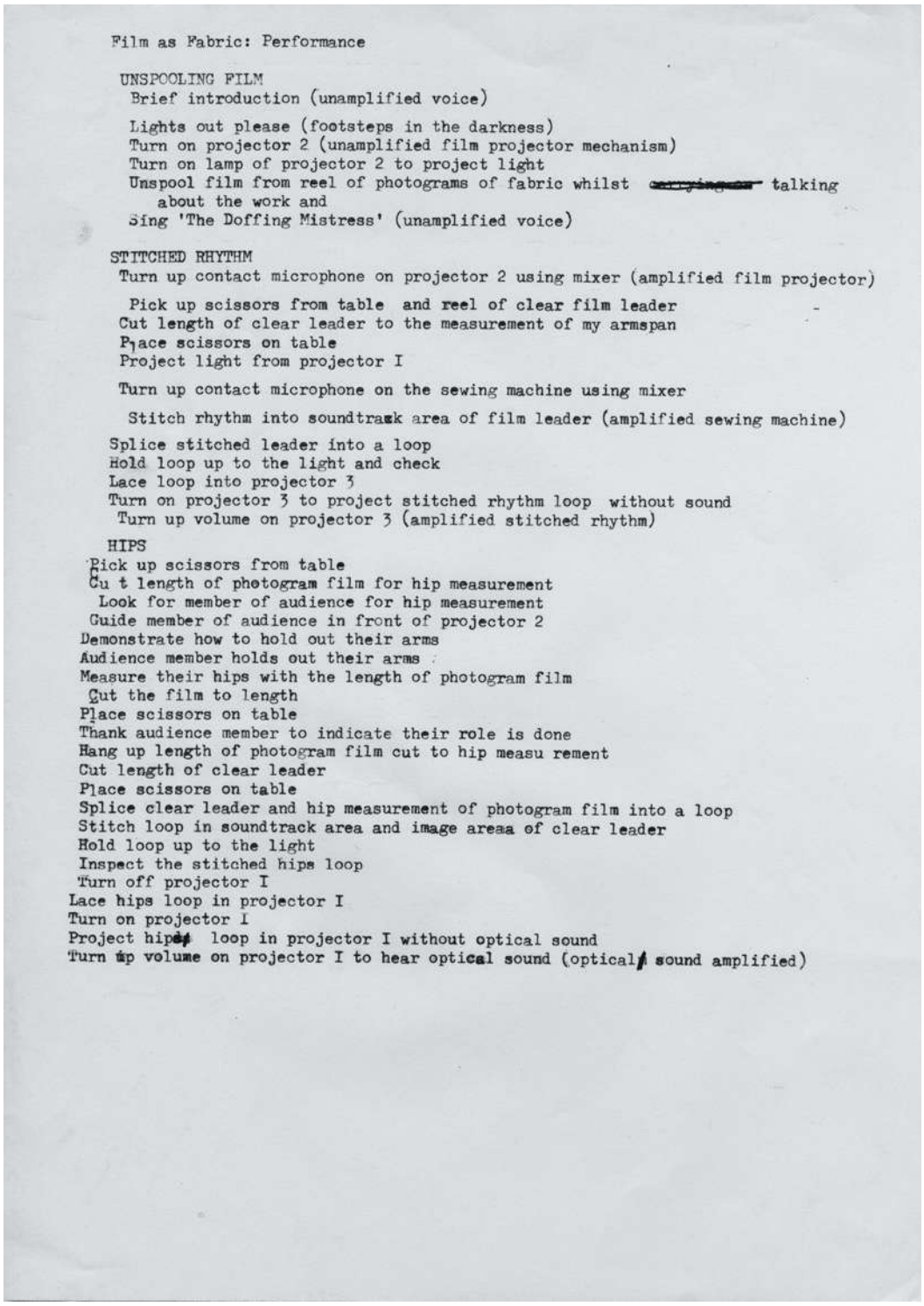
Full description of *Film as Fabric*

I made an A-line dress in a day. I began by choosing the fabric and unrolling it, before measuring my bust, waist and hips to dictate which size pattern to use. I pinned the pattern pieces to the fabric, cut them out, stitched them in different ways, such as adding darts at the bust, before pinning and stitching all the pieces together into the final dress. The last measurement was the length of the hem.

I now start *Film as Fabric* by unspooling a reel of film onto the editing rack in the light of an unspooled film projector. Then I perform a repeated cycle of measuring, cutting, stitching, splicing, lacing, projecting and wearing film. I measure and cut film to my own arm span, before stitching and splicing it into a stitched rhythm, which I lace in the film projector and project, so the beat is heard. I then measure and cut a member of the audience's hip measurement from a low-pitched fabric pattern, before stitching, splicing it into a loop, and projecting it. I repeat this process with a medium-pitched pattern cut to another person's waist measurement, and again with a high-pitched fabric pattern cut to someone else's bust measurement. Then, depending on time, I might add another measurement for the hem length and/or a trimming of buttons. With two or three film projectors, after a new loop is made, I swap it for the projected loop that has been running the longest. After removing a loop from the projector, I wear it around my neck.

After the final loop (this could be hips, hem or buttons) has been made and is running in a projector, I pick up my dressmaking scissors, cast their shadow across a projected image and then cut the film loop. After the film runs through the projector, I pick it up and wear it on my body. I do this at each projector, turning it off and reducing the light in the room, until only one unspooled film projector remains shining on the editing rack. I then walk to the editing rack, take the lengths of film from around my neck one by one and hang them back where they started. I turn off the projector. The sudden quietness and darkness signal the end of the performance.

Film as Fabric: full list of actions[83]



Film as Fabric: Performance

UNSPOOLING FILM
Brief introduction (unamplified voice)

Lights out please (footsteps in the darkness)
Turn on projector 2 (unamplified film projector mechanism)
Turn on lamp of projector 2 to project light
Unspool film from reel of photograms of fabric whilst [redacted] talking about the work and
Sing 'The Doffing Mistress' (unamplified voice)

STITCHED RHYTHM
Turn up contact microphone on projector 2 using mixer (amplified film projector)

Pick up scissors from table and reel of clear film leader
Cut length of clear leader to the measurement of my armspan
Place scissors on table
Project light from projector I

Turn up contact microphone on the sewing machine using mixer

Stitch rhythm into soundtrack area of film leader (amplified sewing machine)

Splice stitched leader into a loop
Hold loop up to the light and check
Lace loop into projector 3
Turn on projector 3 to project stitched rhythm loop without sound
Turn up volume on projector 3 (amplified stitched rhythm)

HIPS
Pick up scissors from table
Cut length of photogram film for hip measurement
Look for member of audience for hip measurement
Guide member of audience in front of projector 2
Demonstrate how to hold out their arms
Audience member holds out their arms
Measure their hips with the length of photogram film
Cut the film to length
Place scissors on table
Thank audience member to indicate their role is done
Hang up length of photogram film cut to hip measu rement
Cut length of clear leader
Place scissors on table
Splice clear leader and hip measurement of photogram film into a loop
Stitch loop in soundtrack area and image areaa of clear leader
Hold loop up to the light
Inspect the stitched hips loop
Turn off projector I
Lace hips loop in projector I
Turn on projector I
Project hips loop in projector I without optical sound
Turn up volume on projector I to hear optical sound (optical sound amplified)

Figure 78.*Film as Fabric* list of actions page 1. Mary Stark, 2018

[83] Rather than being a tool in the live work, this text shows the actions memorised through repeated iterations of the performance

WAIST
Pick up scissors from table
Cut length of film for waist measurement
Look for audience member for waist measurement
Guide member of audience in front of projector 2
Demonstrate how to hold out their arms
Audience member holds out their arms
Measure waist
Cut waist measurement from length of photogram film
Thank audience member to indicate their role is done
Hang up waist measurement on edit rack/washing line
Cut length of clear leader
Place scissors on table
Splice photogram film cut to waist measurement and clear leader into a loop
Stitch loop in soundtrack area and image area of clear leader
Place scissors on the table
Lace stitched waist loop in projector 2
Project stitched waist loop in projector 2 without optical sound
Turn up volume on projector 2 to hear optical sound (optical sound amplified)

Wea ving Machinery Record (duration approximatel y seven minutes)
Pick up record (propped against table leg)
Pull record from sleeve
Place sleeve on floor
Hold record in light of projector I
Bounce light off the surface of the record around the room for about thirty seconds
Play record on record deck
Turn up record deck on mixer (amplified weaving machinery sounds)
Listen for the e nd of the record whilst carrying out the rest of the actions below)
Turn off weaving machinery record when it ends
Turn down record deck channel on mixer

BUST
Pick up scissors from table
Cut length of film for bust measurement
Look for audience member for bust measurement
Guide member of audience in front of any projector
Demonstrate how to hold out their arms
Audience member holds out their arms
Measure bust with length of photogram film
Cut length of photogram film to bust measurement
Thank audience member to indicate their role is done
Hang up bust measurement of photogram film
Cut length of clear leader
Place scissors on the table
Splice bust measurement and clear leader into a loop
Stitch loop in the soundtrack and image area of clear leader
Inspect bust loop
Turn off projector I
Project stitched bust loop
Unlace stitched hips loop from projector I
Wear hips loop around neck
Lace stitched bust loop in projector I
Turn on projector I
Project stitched bust loop in projector I without optical sound
Turn up volume to hear optical sound (amplified optical sound)

Figure 79.*Film as Fabric* list of actions page 2. Mary Stark, 2018

BUTTONS

Pick up scissors from table
Cut length of film for buttons of photograms of buttons
Look for audience member for buttons measurement
Guide audience member in front of any projector
Demonstrate how to hold out their arms
Audience member holds out their arms
Take measuremen t
Cut measurement from length of film with photograms of buttons
Thank audience member to in dicate their role is done
Hang up buttons film measurement
Cut length of clear leader
Place scissors on the table
Splice clear leader and buttons measure ment into a loop
Stitch soundtrack area and image area of clear leader
Inspect spliced and stitched loop
Turn off projector 2
Unlace stitched waist loop from projector 2
Wear waist loop around neck
Lace stitched buttons loop in projector 2
Turn on projector 2
Project stitched buttons loop in projector 2 without optical sound
Turn up volume for optical sound (amplified optical sound)

FINAL CUTS

Projector I
Pick up scissors from table
Play with shadows of scissors at projector I
Cut film loop at projector I
Wear film around neck
Turn off projector I

Projector 2
[redacted] Play with shadows of scissors at projector 2
Cut film loop at projector 2
Wear film loop around neck
Leave projector on

Projector 3
Play with shadows of scissors at projector 3
Cut film loop at projector 3
Wear film loop around neck
Turn off projector 3

Figure 80.*Film as Fabric* list of actions page 3. Mary Stark, 2018

Live sound

My investigation into optical sounds with recourse to fabric and stitch patterns began without a pre-considered sonic or visual aesthetic. Pitched patterns often result in abrasive abstract noises, so I devised three ways of presenting these unusual sounds as expanded cinema performance[84]:

1) splicing them into short loops with sections of clear leader
2) working with two or three multiple film projectors to layer the sounds live
3) presenting them amongst other related sounds: stitched rhythms; the mechanisms of the sewing machine and the film projectors (unamplified and amplified with contact microphones); vinyl records of weaving machinery and songs associated with textile practice; and my own voice.

Reel Time connected textile practice and experimental filmmaking through the use of unamplified sounds. Conversely, *Film as Fabric* has significantly developed by working with live amplified sound[85] and it has been an important way that I have created new links between the fields. I have found the best way to amplify optical sound from my film projectors[86] is to treat each one as a musical instrument amplified with microphones on stands[87]. I control and bring together sounds from different sources with a Behringer 8 channel mixer[88]. Contact microphones[89] are important because they amplify the mechanisms of the film projectors and the sewing machine so that their similarities can be loudly heard.

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[84] In earlier performances, I stitched and edited film loops before a performance and then layered them live using a Boss RC30 loop station[84]. However, this equipment, which is essentially a form of computer, had taken focus away from the production of a defined range of optical sounds and the practice of physically editing them live so the performance is now entirely based upon working with live sound in physical formats.

[85] a PA system; handheld and contact microphones; a Behringer 8 channel mixer; a record deck; and a loop station.

[86] However, when performing in intimate spaces, the film projectors do not need to be amplified.

[87] This solved the issue of a loud hum that was often heard when I connected the film projector to my mixer with a ¼ inch jack cable. Each one runs into the sound desk and once the loudest level is set in the sound check, then I control each projector using the volume dial.

[88] Each channel of sound on the mixer can be manipulated in differently in terms of volume, increasing or decreasing frequencies, and applying effects. However, I avoid affects other than reverb.

[89] Contact microphones are used traditionally to amplify sounds from musical instruments, for example, by being attached to the body of a guitar. They amplify whatever they are in contact with, without picking up on other sounds in the room. Sound artists and experimental musicians also commonly use contact microphones to amplify materials and objects, revealing unusual sounds. For example, running the contact microphone along a thread makes a noise.

Loops

Working with loops is a practice common to textile practice and experimental filmmaking. A loop is formed each time a threaded needle passes through fabric. A film loop is created by splicing its ends together. *Reel Time* was based upon the destruction of a huge, but gradually decreasing, film loop. In contrast, I set myself a sequence of tasks in *Film as Fabric,* based upon editing film into a series of short loops, which I project and layer with other live sounds. Just as stitch joins different pieces of fabric into a garment, I have consistently used the pattering beat of stitched rhythms to hold *Film as Fabric* together. I make a stitched rhythm first because this direct method means the audience are immediately aware that the sound and image have been created with stitch.

The amplified and unamplified mechanisms of the sewing machine and the film projector combine with the stitched rhythm to form the sonic grounding for other sounds. The film projectors are placed in dialogue, chiming with one another when similar pitches are heard. Splicing pitched patterns into loops with sections of clear film leader creates space between the sounds and gives even the most abrasive optical sounds a musical rhythm. The film loop dissolves separation and hierarchy between image and sound set by the mechanics of the film projector[90]. I have aimed to create a range of optical sounds and moving images that can be re-cycled from one performance to the next. I have added new pitched patterns as well as refining them to a specific range that I immediately recognise whilst performing.

[90] because the optical sound head is 26 frames behind the gate which projects the image, leading to the photograms of fabric patterns being seen just over a second before they are heard when projected at 24 frames per second.

Multiple film projectors

"From one side a second projector starts running, throwing a silhouette onto the angled screen: a life-size shadowgraph of the woman as she begins to operate the sewing machine. As the first projector starts an image appears in front: the black and white picture is of the same woman operating the sewing machine" (Sparrow, 2005: online). Nicolson used two film projectors in *Reel Time*, one to project the photographic content on the loop of film, and one to cast her moving shadow and reflect light from the surface of the filmstrip. Similarly, I use two or three film projectors in *Film as Fabric* so that a dominant image is not produced and there is simultaneous emphasis on my live actions, the apparatus in the room, projected images, reflected light and shadows. Working between multiple film projectors, particularly in a site formerly used for textile production, means that I am constantly tending to machinery in a similar way to workers carrying out repetitive tasks in a cotton mill.

I have tested using two or three projectors to layer stitched rhythms and pitched patterns together in different ways. I used two projectors for a performance[91] when I was stripping it to basic elements: stitched rhythms; pitched patterns; the sewing machine and the film projector mechanisms; and my voice[92]. I started by making a stitched rhythm creating a continuous driving beat throughout the performance set against the amplified mechanisms of the sewing machine and the film projector. I measured, cut, spliced and stitched measurements of three people in the audience, before splicing this into one loop which gradually became approximately fifteen feet. I asked people to hold the loop while it was projected. I cut the loops while they were projected so they ran onto the floor. I picked up the film and wore it on my body as I walked to the editing rack and hung up the film in the light of an unspooled projector.

After reflecting on this iteration, I worked with three film projectors in another performance[93] which I based upon a succession of shorter loops cut to measurements of my body and members of the audience. I layered these with the amplified film projector and sewing machine mechanisms. This method gave a clearly defined repeated pattern of

[91] SoundisSoundisSound, a night curated by Charles Hayward at The Albany in Deptford in April 2016.
[92] It was the first time I worked live without the Boss RC 30 loop station and it was a particularly challenging iteration of the performance for numerous reasons
[93] in Rogue Artist Studios Project Space at Crusader Mill for Manchester Histories Festival in June 2016

measuring, cutting, stitching, splicing and projecting film. The performance with two projectors was sonically sparse and the rhythm of my actions was lost. The physicality of the long loop and the audience holding it was interesting, but the sound in the performance suffered because the long loop did not have the recognisable repetitive pattern of the short loops. Therefore, I now prefer to use three projectors in *Film as Fabric*.

Measuring and wearing film on the body

Figure 81.Measuring my mother with film in *Film as Fabric* at Rogue Artist Studios Project Space as part of Manchester Histories Festival. Mary Stark, 2016

Film and cloth are both measured with the body. A yard of fabric can be roughly measured by the distance between nose and fingertip (standing with your head facing front and your arm straight to the side). As discussed in chapter one, this is the same measurement that Murch describes cutters in early cinema using to measure film, "the knowledge that the distance from the tip of one's nose to the fingers of the outstretched hand represented about three seconds" (Murch, 2011, p. 75). He does not provide a source, but there are other examples of film being measured with the body that support his idea[94], with the most well-known being that film is measured in feet, a foot of film being twelve inches. Jodie Mack has described how she began, "drawing and painting directly on the film strip where each frame is the size of your fingernail" (Mack, 2018: online). The Technical Coordinator at LIFT, Karl Reinsalu, recommends an arm span as the amount of film leader to splice onto the start and end of a reel of film. The Canadian filmmaker James Loran Gillespie, who formerly worked at sea, edits 8mm film in fathoms, an arm span measurement used to describe depths of oceans (fig.82).

[94] Also see chapter two for a discussion of artworks that involve film and body measurement

Figure 82.James Loran Gillespie editing in fathoms at LIFT. Mary Stark, 2014

My research into film being measured with the body and dressmaking informed my practice of cutting film to measurements of the body. I selected measurements for *Film as Fabric* that blend those used in dressmaking: bust/chest; waist; hips and hem, with the arm span length used in film editing. This practice of editing film creates a novel relationship between the fields. Through working with lengths and loops of film in expanded cinema performance, I began to wear them around my neck because this is the quickest way to store them. After seeing *Film as Fabric*, a former film editor Lesley Evans, told me that wearing film in this way was common practice in film cutting rooms. Because a tailor or seamstress similarly drapes a tape measure around their neck while making clothes, wearing film around my neck in *Film as Fabric* highlights this connection between the fields.

Similarly, the significance of wearing specific clothing to perform Film as Fabric contributes new connections between textile practice and experimental filmmaking. I have developed my expanded cinema performance in response to Nicolson's *Reel Time* and by shifting my studio-based processes into the public realm. Due to shyness, at first, I wore plain black or neutral coloured clothing with the intention of directing attention away from my presence and foregrounding the physical body of film. These clothes were meant to help me blend into the shadows, but it was obvious that my presence was an integral element of live works. I became aware of my body casting shadows and chose

clothes that created strong silhouettes. This developed into wearing patterned clothing to match the moving images and sounds I project, and finally through making my own dress, the process of dressmaking and the dress itself have become integral to *Film as Fabric*.

I now wear the dress I made to perform. To put on the dress, I pull it over my head and fasten ties at the back. This simple design is similar to an apron or tabard, developing ideas that first arose in a performance amongst the weaving machinery at the Museum of Science and Industry in Manchester, for which I wore a striped tabard after looking at photographs of mill workers[95]. By wearing the tabard while working with three film projectors that sound similar to weaving machinery, I wanted to highlight the relationship between my performed actions and the hidden labour of industrial workers in textile mills, creating a further novel connection between the fields.

Figure 83.Wearing film loops and a polka dot t-shirt to perform *Film as Fabric, Lace and Thread* at Full of Noises Festival. Mary Stark, 2015

[95] as shown in the book by Tim Smith and Olive Howarth, *Textile Voices: A Century of Mill Life* (2006) Bradford Arts Heritage and Leisure, Bradford

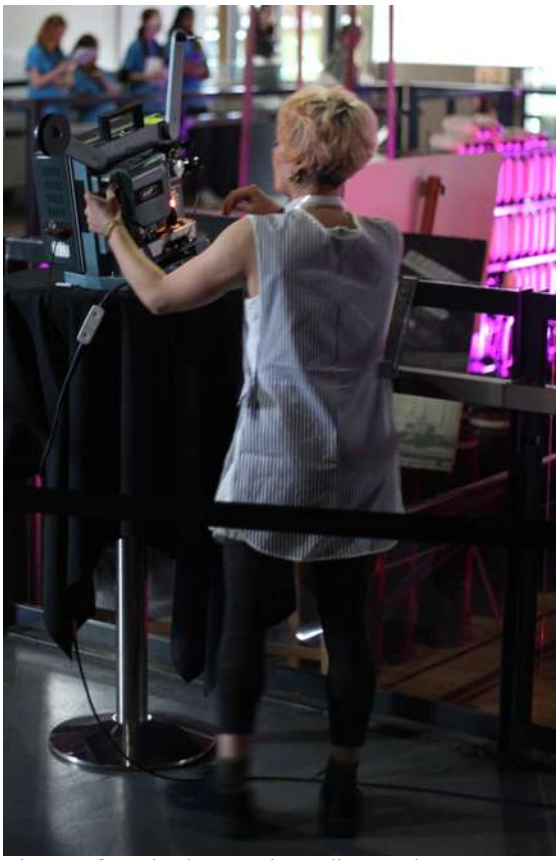


Figure 84.Wearing a tabard to perform in the weaving gallery at the Museum of Science and Industry in Manchester. David Chatton Barker, 2015

Figure 85.Wearing film loops and a dress I made. Radio Revolten International Festival of Radio Art, 2016

Figure 86.Wearing film loops and homemade dress. Radio Revolten International Festival of Radio Art, 2016 [online]

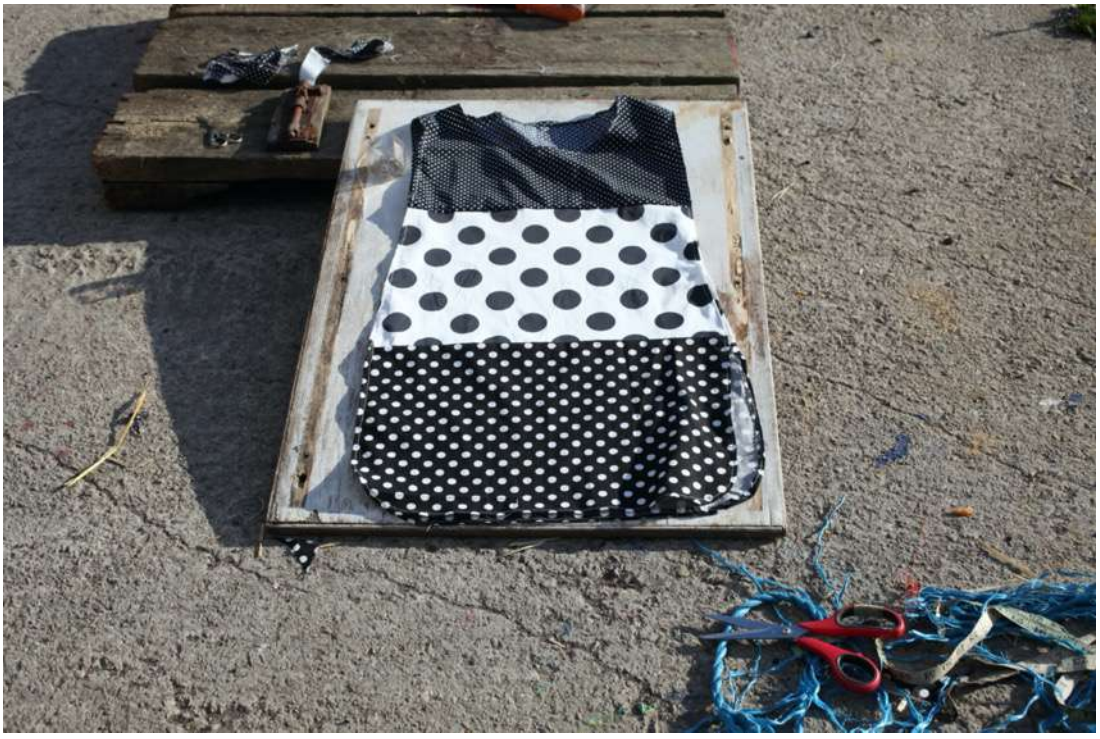


Figure 87.Making a tabard for the next iteration of *Film as Fabric*. Mary Stark, 2019 [online]

Definition of similarities between dressmaking and film editing

The material components of dressmaking/tailoring are fabric, thread, needle, pins, scissors, tape measure and the body that wears the garment. A yard of fabric is measured with the distance from of one outstretched arm pointing straight out to the side from the body. In dressmaking, seams involve joining separate pieces of fabric by stitching them together edge to edge. The stitches of a seam are often hidden on the inside of a garment so it appears as a finished product, yet it can be turned inside out, unpicked and re-sewn. For example, skirts can be made with a hem that can be let down as a child grows and the fit of a garment can be altered by unpicking and then re-stitching as long as there is enough seam allowance. Stitches can be unpicked, but the cut of cloth is decisive and permanent. If fabric is cut too small or short and there is not enough to allow for a seam, then it is almost impossible to insert a piece into a garment without it looking obvious. However, finished garments and furnishings may be re-cycled endlessly, particularly in the home, where curtains might become clothing, which may then eventually be ripped up and used as rags for cleaning.

The core physical elements of filmmaking could be said to be film, splicer, splicing tape, spools and film projector, as well as the screen on which the film is projected. Film is measured in 'feet'. An industry standard foot measures 12 inches. The arm span is a commonly used measurement for lengths of film leader[96].Cutting and splicing film is the basic practice of film editing. Film can be cut with scissors, but the film splicer allows film to be quickly and accurately cut and joined. The splicer positions the film, so the cut does not disrupt the regular pattern of the sprocket holes, which is needed to ensure smooth movement in the film projector and prevent the film breaking or ripping. Splicing film involves placing two pieces of film end to end in the film splicer, where they are held in position with notches for the sprocket holes. The ends are then joined either with film cement or splicing tape. Just as the stitches of a garment can be unpicked and re-sewn, spliced film can be re-cut into endless re-configurations, but the 'trims' from the start or end of a shot can be saved and re-spliced into a film sequence because, unlike a stitched

[96] Film leader is clear or coloured. It is spliced onto the beginning and end of a film

seam, a film splice is hidden by the speed at which it moves through the film projector, although splices can be seen and felt on close inspection of the filmstrip.

Film is 'worn' through being projected because the film projector contributes 'signs of wear and tear' to the film print that appear as scratches, dirt and dust. But film can also be further thought of as being 'worn' through considering wearing an item of clothing and projecting a film as gestures of display. The idea of film being 'worn' through the process of projection may be intensified by projecting onto a screen made from cloth. Key to both the act of wearing a garment and projecting a film is that static materials are transformed through movement. A garment is animated by being worn on the body. A film is brought to life through the mechanics and light of the projector. Film and fabric connect further through gestures of display by the way that both may be hung out to dry on a line[97].

[97] Freshly processed film is hung to dry on a line but in artisanal, rather than industrial setting

Autobiographical narrative

Nicolson's *Reel Time* had an autobiographical narrative which arose from her stitching film on a sewing machine inherited from her mother (Curtis, 2002, p. 1). Nicolson has stated: "I was thinking about me and my relationship to the sewing machine"(Reynolds, 2009, p. 85). Her use of stitch in expanded cinema performance radically fused her intensely personal relationship with her mother and the ancient domestic tradition of women passing on textile skills with the genres of structural/materialist filmmaking and expanded cinema.

Similarly, when I perform *Film as Fabric*, I now wear specific clothing: a cardigan hand knitted by my mother; a dark navy polka dot dress that I have made myself; a plain black stretch long sleeved t-shirt; black tights; sparkly socks and dark brown boots. This is a particular combination of clothing rather than a costume. I am not dressing up as someone and I wear these clothes when I am not performing. However, I wear the dress and cardigan as representations of the history of textile practice in my family, building on the autobiographical aspect of *Reel Time* and further connecting textile practice and experimental filmmaking.

I am the fourth generation of skilled needlewomen on my mother's side of the family. A number of members of my maternal side of the family, who all lived in Bolton, worked in the textile industry. My great-grandmother, Ginny Bower, worked in a cotton mill at the age of thirteen. According to my mother, Ginny rarely spoke about life in the mill, except to say how hard it was. Somehow, she developed fine sewing skills and became known in the community for her well-made clothes and hats. She sewed everything by hand, even the most intricate dresses for special occasions. Ginny's daughter, my grandmother, Laura Bower, left school at the age of 14, and worked in a high-class haberdashery. She served behind the counter, learning about fabrics and trimmings, and any quiet times in the shop were used to cut out and sew things for herself.

Laura Bower married Joseph Tootell who served in the second world war and then worked as a wages clerk in a cotton mill close to their house. My mother's older brother, my uncle Phil, still recalls working in the mill in the school holidays, but my mother Joan, and her sister, Eileen, never worked in the textile industry. However, my great-

grandmother and grandmother made sure that Joan and Eileen became highly skilled in knitting and sewing from an early age. As young children, my mother and her sister came home from school for lunch. After they had eaten, they had to knit four rows of garter stitch before they could go out to play. They were knitting dish cloths that were given to neighbours and friends as gifts.

Figure 88.From left to right, my great grandparents and my grandmother. Jane or 'Ginny' Bower, Ernest Bower and Laura Bower. Photographer unknown, 1920s

My mother was also taught to hand sew by her gran and her mother: "They had high standards so hem stitching had to be neat, even and small, and back stitch in a straight line with regular, tiny stitches" (Stark, 2015, p. 1). My grandmother also made her daughters learn how to make a basic dress in cotton, "from cutting the pattern out to final press" (Stark, 2016a, p. 2). My mum vividly remembers her mother making clothes on a sewing machine set up on the dining table, which they learned to sew on from the age of nine, "although its speed and noise was scary at first" (Stark, 2015, p. 1). My grandmother made, adjusted and repaired clothes for the whole family, carrying out a number of recycling processes to save money, mending parts of garments or whole items of clothing. She would turn collars on shirts, darn socks and unravel wool jumpers, leave

it to soak in cold water to get the crinkles out and then knit it into something new (Stark, 2016b, p. 2). My mum and her sister continue to knit clothes for themselves and others. Eileen is an expert quilter and they both share an infectious passion for clothing, fabrics and yarns.

I have grown up surrounded by my mother's countless colourful baskets of wool and her quiet daily commitment to multiple knitting projects. As a child I remember having yarn wrapped around my small hands as soft skeins were wound into balls of wool. My mother sewed baby clothes for me and has knitted clothing for me as long as I can remember. Clicking needles and counting stitches echo through my family history, many nimble fingers powered by tight budgets, creativity and love. I cannot claim the same level of textile expertise and experience as my mother and my aunt, but their sensitivity to clothes, yarns and fabrics, and some of their skills, have been passed on to me. My mother taught me to knit by hand and machine sew. I was shown how to embroider different stitches by my grandmother. As an unspoken rite of passage, just as my mother had to make a dress as a teenager, she helped me choose fabric and make a wrap-around skirt for my thirteenth birthday on her sewing machine.

Until recently, I had taken my background for granted, but I now recognise its significance and observe that in my mother's living memory, there has been a major shift away from making clothes to buying them. Therefore, just as this research is underpinned by the obsolescence of photochemical film, it is also haunted by the wide loss of textile skills in my generation. The loss of both textile and photochemical filmmaking skills brings a sense of urgency to this research because it means that the relationships between textile practice and experimental filmmaking are in danger of being forgotten.

Site-specificity

"North London 1973, a Victorian dairy, a former industrial space designed to be cold, now housing artists' studios. Up a worn stone staircase to the third floor, a door gives onto a dimly-lit hall, the cinema space of the London Film-Makers' Co-op" (Sparrow, 2005: online). Although Sparrow does not elaborate on the significance of Nicolson performing *Reel Time* in a post-industrial space, by paying attention to this detail at the start of her account, she implies that it was important. However, site specificity is rarely addressed in experimental film (Hamlyn, 2016: online). I now challenge this by having developed and frequently performed *Film as Fabric* in former cotton mills around Manchester.

Figure 89.Crusader Mill on Chapeltown Street Manchester. Mary Stark, 2017

From 2011-2016 my studio was in a building called Crusader Works, also known as Chapeltown Street Mill. It was originally built in the nineteenth century for spinning cotton but was also used for machine manufacture and as a garment works. In 1995, Rogue Artist Studios took over parts of the building and by the time I rented a studio, they provided workspace for nearly a hundred artists. This artistic activity took place

alongside other areas within the building that were occupied by knitting businesses, who employed many Asian workers.

Working in this site led to thinking about my family history, which includes workers in cotton mills and expert needlewomen, as well as concealed workforces labouring in factories around the world today[98]. This has informed iterations of Film as Fabric. For Manchester Histories Festival I placed three projectors so their projections looked like windows in a workshop and created multiple moving shadows that alluded to unseen workers and ancestral ghosts.

The way that I cut film to people's body measurements in *Film as Fabric* re-imagines my mother's memories of trying on a dress during the making process so that her mum could get the fit right:

> *"This involved putting on a dress still held together with pins (tricky!) as we were likely to be stabbed or scratched. We had to stand stock still (boring) while Mum cut round the neckline and armholes with her cold, sharp dressmaking scissors. It was a flesh-tingling sensation to feel the cold blades snipping so close to delicate flesh, and hard not to wince and wriggle. Standing still while Mum got the hem exactly right seemed interminable. Most dresses had at least two fittings, but it was worth it in the end to have individual styles in a perfect fit"* (Stark, 2016a, p. 2).

In addition, my great-grandmother worked in a cotton mill half days as a doffer. Doffers removed bobbins holding spun thread, such as cotton or wool from a spinning frame, and replaced them with empty ones. My work with a succession of short loops between three whirring film projectors re-imagines her activity in the spinning shed.

Just as Nicolson transferred into experimental filmmaking her relationship with her mother and the longstanding domestic custom of women passing on textile skills, I now re-enact my mother's memories of her grandmother in sites that resonate with the

[98] As featured in documentary films *Machines* (2016) by Rahul Jain and *Quality Control* (2011) by Kevin Jerome Everson

industrial work of my great-grandmother, layering my personal ancestral narrative with the industrial heritage of the building and its surroundings [99], entwining these autobiographical and site-specific meanings through expanded cinema performance. Now when I perform *Film as Fabric* the site, the optical sounds and moving images of fabric and stitch patterns, the sound and presence of film projectors and my sewing machine, my actions, and shadows, refer to industrial machinery and hidden labour creating new connections between textile practice and experimental filmmaking.

[99] This layering of women's labour and craft in my family history deepened at a performance for Manchester Histories Festival when my mum and aunt were in the audience and I measured my mum with film.

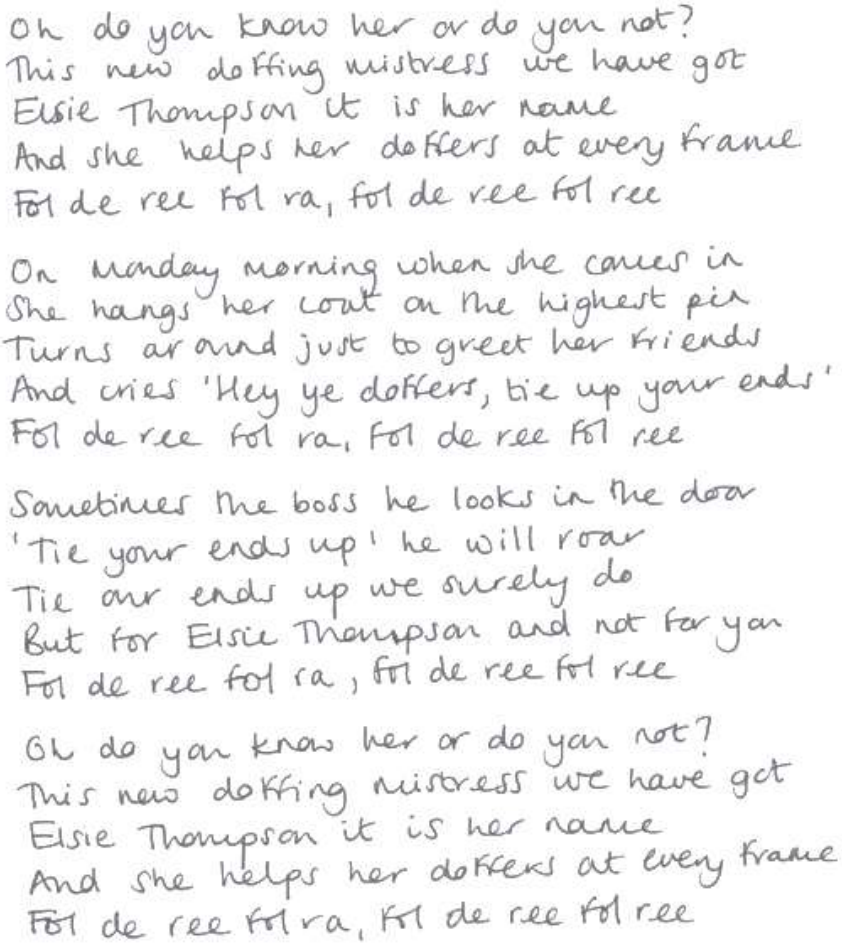
Voice

It is not clear exactly how Nicolson introduced *Reel Time* and or if she spoke throughout the performance. Nicolson's power as a female artist was anchored by the act of stitching film on the sewing machine, "as an accomplished coordinator of her materials and her tools, demonstrating her physical prowess and knowledge, sewing, shaping and projecting her image" (Smith, 2015, p. 9). Similarly, translating the act of making a dress into expanded cinema performance has brought confidence to my presence as a female performance artist, as well as giving the audience a role in the work. However, my voice has become a way that I reach out to the audience and assert my empowered position as a female artist. Rather than being objectified and seen at a distance, I use my voice to engage the audience in my personal subjective perspective.

Measuring people with film also involves physically reaching out and touching the audience in an act that further crosses the boundary between audience and artist. When I measure someone with film, I approach them and, if they agree, guide them to stand in front of the beam of a projector, showing them how to hold out their arms to be measured, which they then copy, casting a strong silhouette. I measure their hips, waist or bust with film, cut it to length, thank them, and they go back into the audience. Measuring people with film helps to counter my feeling of being on show. It takes the focus away from my body and implicates everyone. It allows me to take control of the audience's attention and direct their gaze. I have tested forewarning people in the introduction and also doing it without warning. I like that it is unexpected and as the audience wonder who I will approach next.

This strategy aligns with the idea of a woman performance artist as a 'mobile creative agent', who determines how she is experienced by her audience: "In defining the rules of the game and holding the element of surprise as her trump card, a woman may take unprecedented control of her own image" (Elwes, 1990, p. 191). Throughout this research I have been finding my voice and it is now important in *Film as Fabric*, which works best in smaller intimate spaces where I can be heard without the need for amplification.

At first, I found it hard to know how much or little to say to introduce the performance, or whether I should introduce it at all[100], but I can provide contextual information that highlights connections between textile practice and experimental filmmaking enriching the performance. Addressing the audience is also a key feminist strategy in performance art that highlights my perspective as a female artist and my personal family heritage. My voice, which falters and slips between nervousness, confidence, uncertainty and lucidity, represents my presence and vulnerability as a performer, as well as a history that has brought me to this point in time.



Oh do you know her or do you not?
This new doffing mistress we have got
Elsie Thompson it is her name
And she helps her doffers at every frame
Fol de ree fol ra, fol de ree fol ree

On Monday morning when she comes in
She hangs her coat on the highest pin
Turns around just to greet her friends
And cries 'Hey ye doffers, tie up your ends'
Fol de ree fol ra, fol de ree fol ree

Sometimes the boss he looks in the door
'Tie your ends up' he will roar
Tie our ends up we surely do
But for Elsie Thompson and not for you
Fol de ree fol ra, fol de ree fol ree

Oh do you know her or do you not?
This new doffing mistress we have got
Elsie Thompson it is her name
And she helps her doffers at every frame
Fol de ree fol ra, fol de ree fol ree

Figure 90.Handwritten lyrics to *The Doffing Mistress.* Mary Stark, 2018

[100] I spend time thinking and writing what I want to say. I have used notes as a prompt or a script because I am always nervous. It has sometime been necessary to use a microphone because of different spaces and sizes of audience. But a microphone restricts my movement and dislocates my voice from my body. People are quiet if I do not have a microphone because they have to listen closely.

Sound associated with textile practice

Thinking about voice loops back to my concern with sound in *Reel Time*. It was "full of noise," partly created by, "the hum of the sewing machine" (Sparrow, 2005: online). Considering Nicolson's use of the sound of the sewing machine combined with my own work creating stitched rhythms in sites where cloth was produced led to research into sound associated with textile practice. My research focused on industrial machinery, songs and music, which ground my practice in the heritage of Manchester and connect textile practice with performance, protest and voice[101]. I have experimented presenting stitched rhythms and pitched patterns amongst recordings of sounds related to the production of cloth on vinyl records. The records are a mixture of vinyl dubplates[102] made especially for the performance and pre-existing recordings of folk songs[103]. One was made after visiting Quarry Bank Mill, a working textile museum in Cheshire, to record the sounds of industrial machines involved in weaving[104], before editing them into thirty second 'samples', which were pressed as a vinyl record[105].

I have worked with these samples in *Film as Fabric* in numerous ways, with the goal of connecting stitched rhythms and pitched patterns with sounds associated with textile production. In my studio I listen to recordings on vinyl records, sing or play songs on my whistle. I have played records of songs as people arrive before a performance. I worked with this music using my voice, playing keyboard, contact microphones and optical sound in Summoning Ghosts of Industries Past (2015). For another iteration Lace Tells (2015), I mixed stitched rhythms and pitched patterns with samples of different songs[106]. Because folk song collecting has mostly removed songs from their original contexts, offering little information about the environments in which the singers composed and sang their songs (Korczynski, 2013, p. 6), I have used expanded cinema performance to re-imagine the historical sonic context out of which this music originated, projecting stitched rhythms

[101] See appendix Research into Music Associated with Textile Practice

[102] A dubplate is a single pressing of a vinyl record. Traditionally dubplates were used by recording studios to test recordings prior to mass production.

[103] The songs have been sourced from a number of already released records: The Female Frolic, The Iron Muse, Deep Lancashire, Chanson de Toile by Esther Lamandier and Songs of the Outer Hebrides. Archival recordings were sourced from the publication and accompanying CD release *'Rhythms Of Labour'* (2013).

[104] My partner David was influential in this decision as he had vinyl dub plates specially made for use in a Folklore Tapes touring performance *Theo Brown and the Folklore of Dartmoor* (2014).

[105] I also made another dubplate from a selection of archival recordings of songs associated with textile production that do not exist on vinyl.

[106] using the loop station at Café Oto in 2015

and pitched patterns amidst songs associated with textile production and mechanical sounds.

I have used the sounds of industrial weaving machinery combined with stitched rhythms and pitched patterns to create an intense crescendo in *Film as Fabric*. The slight gap in between each track on the record means that there are short regular lulls, which resonate with the pauses in *Reel Time*. However, I realised[107] the live sounds of fabric and stitch patterns, the unamplified and amplified film projector and the sewing machine mechanisms already refer to textile machinery, without the need for additional pre-recorded sounds.

Because my great-grandmother worked as a doffer, I have consistently returned to one particular song, *The Doffing Mistress*[108], which has been recognized as having feminist themes - the lyrics tells of solidarity between women workers, whose job was seen as one of the lowliest and dirtiest in the mill[109]. I have sampled and played as well as finally sung the song in Film as Fabric. Learning to sing the song has informed thinking about performance, documentation and memory. Singing it had a rousing effect on my body and mind. To hit the high loud notes, I had to stand up and breathe deeply[110]. As I sang the song repeatedly, I learned the rhythm of the words and the depths of breaths needed in between lines, developing embodied knowledge that I could not have gained from reading the lyrics, looking at musical notation or listening to a sound recording.

Singing extended my concerns with sound and physical form, which have developed out of examining optical sounds created from fabric and stitch patterns. Singing affects the body of the singer physically and emotionally, but also affects or 'touches' those who hear them: "Hearing is a way of touching at a distance and the intimacy of the first sense is

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[107] After a cable failed during a performance meaning that the only signal from my record player was a loud hum

[108] This song might have been sung in Manchester, but it was recorded by the American anthropologist Betty Messenger in her study *'Picking Up the Linen Threads'*, an investigation into the industrial folklore of a linen mill in Northern Ireland from 1900-1935 published in London in 1975 by University of Texas Press. The Betty Messenger Collection recordings can be heard on a CD that accompanies a book Korczynski, Pickering and Robertson (2013) *Rhythms of Labour: Music at Work in Britain*. Cambridge University Press.

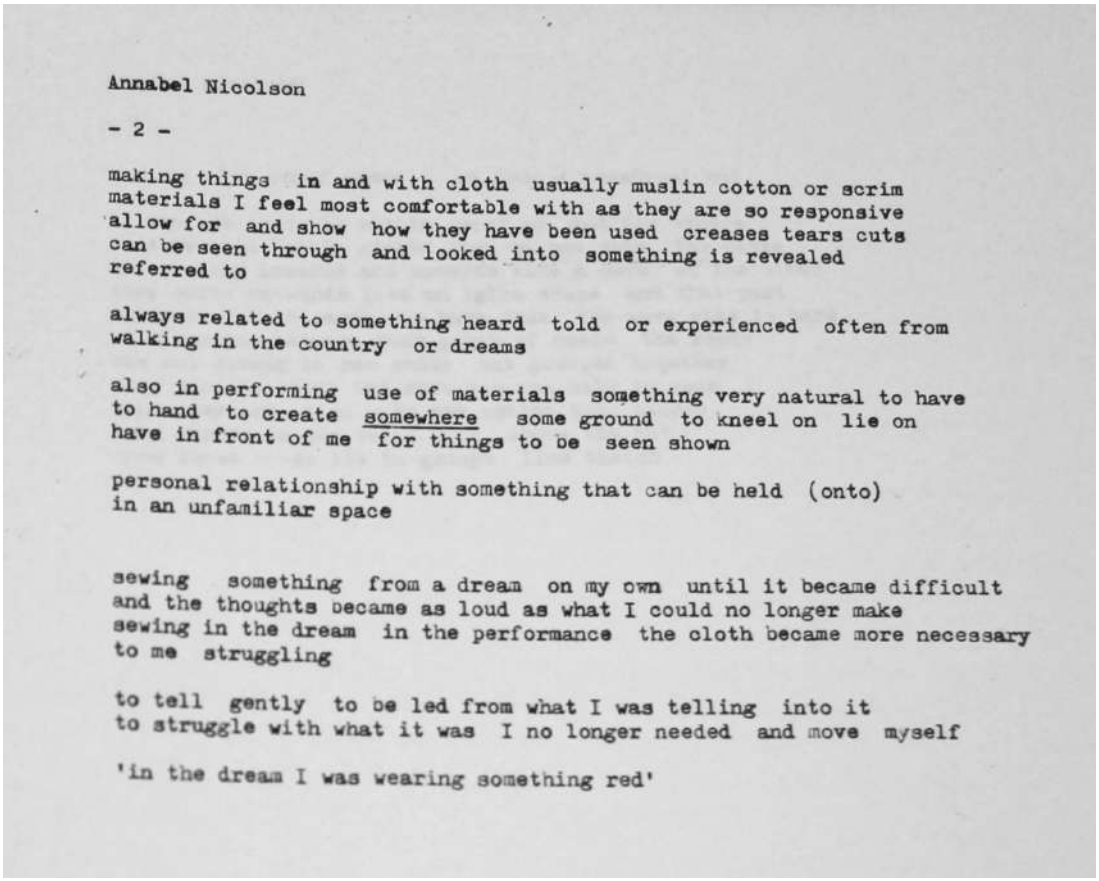
[109] *'The Doffing Mistress'* has been included on two albums '*The Iron Muse: A Panorama of Industrial Folk Music*' released by Topic in 1963, and in 1968 by Argo on the compilation 'The Female Frolic' by The Critics Group: Peggy Seeger, Sandra Kerr and Frankie Armstrong.

[110] I wondered whether this might have helped workers like my great grandma to carry out their laborious task over a long working day?

fused with sociability whenever people gather together to hear something special"(Murray Schafer, 1977, p. 11). Performing Film as Fabric at Islington Mill in Manchester led to my desire to sing the song because the building was originally built for spinning cotton. The point was not to sing the song perfectly in key, I sang it to emphasise the site's former use, to highlight hidden labour and the history of textile practice in my family.

Nicolson's work with sound

My concern with sound associated with fabric and stitch has been supported by identifying that Nicolson also shared this interest. Her time at Greenham Common Women's Peace Camp in the 1980s has been acknowledged as helping to embed feminist concerns within her practice[111] (Reynolds, 2015, p. 91). However, I suggest that Greenham Common also led to her combining textile practice, sound and performance art in *In the Dream I was Wearing Something Red*, (1981-2), in which she handstitched white cloth with text while speaking. This idea is supported by an article documenting her experience of the protest (fig.92). At this time, she was inspired by, "women sewing skin boats, women making dwellings and shelters out of fibres etc., and recordings of women singing while waulking cloth in the Outer Hebrides" (Nicolson, 1983: no page number). She also wrote a text describing how she worked with fabric in performance art (fig.91)[112]:



Annabel Nicolson

- 2 -

making things in and with cloth usually muslin cotton or scrim materials I feel most comfortable with as they are so responsive allow for and show how they have been used creases tears cuts can be seen through and looked into something is revealed referred to

always related to something heard told or experienced often from walking in the country or dreams

also in performing use of materials something very natural to have to hand to create somewhere some ground to kneel on lie on have in front of me for things to be seen shown

personal relationship with something that can be held (onto) in an unfamiliar space

sewing something from a dream on my own until it became difficult and the thoughts became as loud as what I could no longer make sewing in the dream in the performance the cloth became more necessary to me struggling

to tell gently to be led from what I was telling into it to struggle with what it was I no longer needed and move myself

'in the dream I was wearing something red'

Figure 91.*'in the dream i was wearing something red'* text. Annabel Nicolson, 1983

[111] There she made a super 8mm film with sound *Fire Film* (1981)

[112] It is not clear if she said this out loud or presented it as text alongside the live performance

LESLEY McINTYRE

forming a circle was about continuity
seeing continuity in our lives 'we suspect
the circle will take on its own energy and
form' women taking each others' places at
the fence watching over each others' lives

keeping watch

towards dusk making our way towards

the gates groups of women forming
round each other singing darkness

light from candles making same spiral as
women dancing women with candles cir-
cling round spiralling forming a spiral
more and more women spiralling round

we say no

we say no

fires being lit darkness tents being pit-
ched women singing small
groups round fires

attending to

making shelters

so many of us so close so completely re-
sisting
since early morning outside the
gates in the road
living out what we deal with everyday

our rawness in this world
what we know we see before us

rescuing each other with 'the whole world
is watching'
is this the only thing that stops them

how many times for how many women
no one is watching

so close so completely resisting
since early morning

women are singing

DM

PAULA ALLEN

you can't kill the spirit
She is like a mountain
old and strong
She goes on and on

you can't kill the spirit
She is like a mountain
old and strong
she goes on and on

37

Figure 92.Page from article about Greenham Common Women's Peace Camp. Annabel Nicolson, 1981

In the 1970s and 80s Nicolson combined textile practice, sound and performance art, creating connections that have only recently begun to be recognised as significant in contemporary craft[113]. She further contributed to the field of sound through her involvement with the London Musician's Collective[114] and as editor of *Musics* magazine from 1975-1979[115]. She plays fire, sticks and pine needles on a record released in 1980, which brings together taped documentation of a thirteen-hour performance *Circadian Rhythm* (1978) with a number of highly regarded experimental musicians: David Toop, Paul Burwell, Hugh Davies, Max Eastley, Paul Lovens, Paul Lytton and Evan Parker[116].

Toop has described her contribution to *Circadian Rhythm* and her approach to working with sound in an unpublished essay. He discusses a handwritten 'retrospective score' she made of the performance (fig.93):

> *"Once there was a thick fog and the rafts and things that went by was beating tin pans so the steamboats wouldn't run over them"*[117]*; then notes about smoke-tin pans (hidden drumming); incense + charcoal (light in trees); song of women pearl divers in Taiwan; Chinese lantern; stars phosphorescence (room filled with smoke); darkness; sound of frogs; New Orleans record becoming louder as steamboat passes" (Toop, 2012, p. 8). Toop recognises Nicolson's approach to sound as connected to, "magical images, in which cyclical ritual is entwined with the history of lighting (and, by extension, the history of cinema)"* (2012, p. 8).

Toop regrets that Nicolson's performative contribution, which was based around sound but also light and scent, was barely registered on tape. The performance and record release have since been given little attention, as has the way that Nicolson's practice spans expanded cinema and sound art. Toop has written about Nicolson's presence, and

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[113] See projects by David Littler *Sampler Culture Clash* and *Yan Tan Tethra* in partnership with the English Folk Dance and Song Society in 2014.

[114] From its foundation in 1975 (which grew from *Musics* magazine) until its reorganization in 2009, the LMC organized concerts, festivals, tours, workshops and publications in support of experimental music.

[115] *Musics* was a magazine series from 1975-1979 for new ideas and developments in music, performance and related arts concerned with new ways of regarding sound and communication and their changing social and cultural context.

[116] Toop describes Circadian Rhythm as "the experiment of a performance that resists performance and a fascination with what lies beyond the edges of a spotlight, beyond the edges of circumscribed the dictated by alcohol and music licenses, public transport, noise restrictions, staff overtime, the limits of listener concentration and the arbitrary boundaries of technology (Toop, 2012, p. 8)

[117] It is assumed this is a quote from Mark Twain

subsequent absence, in a number of male-dominated scenes, proposing that her lack of recognition is a profound injustice: "When sound art is discussed, or improvised music, or performance art, or the voice, or writing about sound, 'Miss Nicolson' has somehow slipped the net, despite her centrality to the evolution of these interrelated arts" (Toop, 2013: online). Therefore, my research enters into efforts to counter this absence. By sampling Reel Time and paying close attention to the importance of the sound in the performance, I aim to open discussion of the narrative of Nicolson's work with sound, as well as her pioneering practice connecting textile practice and experimental film.

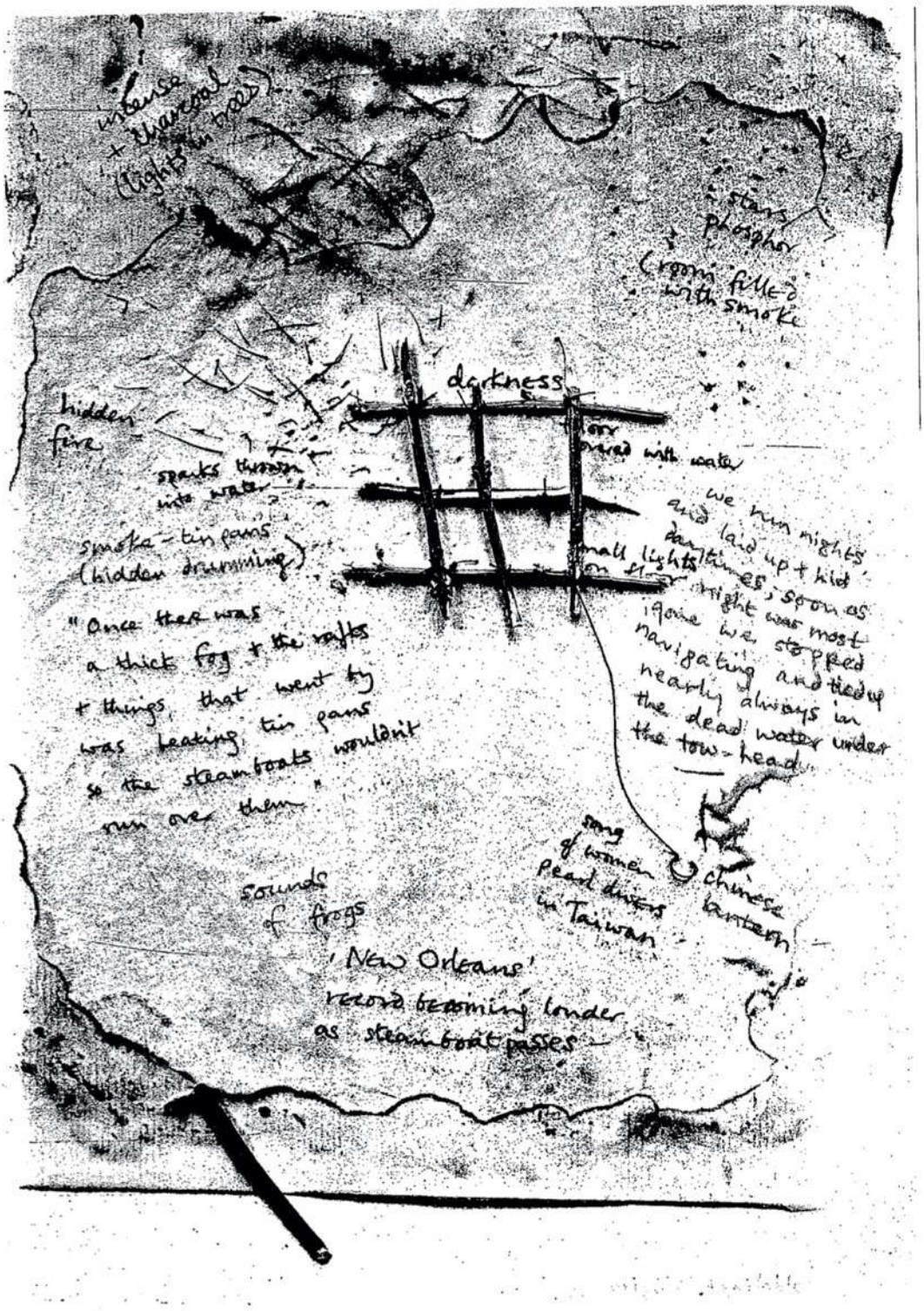

Figure 93.Performance memories/score of *Circadian Rhythm*. Annabel Nicolson, 1978

Documentation

Filmmaking has often been used as a method of documenting performance art, such as the previously mentioned *Cut Piece* by Ono and Burden's *Shoot*. Nicolson's *Reel Time* flipped this on its head by gradually destroying film that shows her performing the same action for the camera. Nicolson used a synergy of the materiality of film, textile and cinematic apparatus as a way to interrupt the audience's gaze, gradually obliterating a fixed photographic image of herself, shifting their attention onto her live presence as a female performance artist.

Alternatively, I have produced three core documents: a limited-edition vinyl record made by sampling and editing sections from recordings of performances of *Film as Fabric*. This was released as a limited-edition 10-inch double sided vinyl record *Industrial Folklore Tapes: Vol III – Film as Fabric* with a twelve-page booklet (figs.94-97) which includes preparatory drawings, typewritten text, photographs and a strip of 16mm film[118]. I have also made a website that brings together performance documentation, as well as studio practice and field research, allowing video, sound, text, drawings and photographs to be seen and heard alongside one another[119].

Throughout the research my artist website has been key in the dissemination of the live work on an international level. At the end of the research a new website brings all the different aspects of the project together and shares it internationally. And finally, this thesis seeks to offer an intermedia divergent artistic context, that builds on Nicolson's *Reel Time*, highlights the repressed relationships between textile practice and experimental filmmaking, and recognises women's work in the cutting rooms of early cinema.

[118] The record was the third in a new series of records, devised with my partner David Chatton Barker, titled *Industrial Folklore Tapes*.
[119] For screenshots of the website see the appendix

Photographs of Industrial Folklore Tapes Vol III *Film as Fabric*

Figure 94.*Industrial Folklore Tapes Vol III : Film as Fabric.* Mary Stark, 2018

Figure 95.*Industrial Folklore Tapes Vol III : Film as Fabric.* Mary Stark, 2018

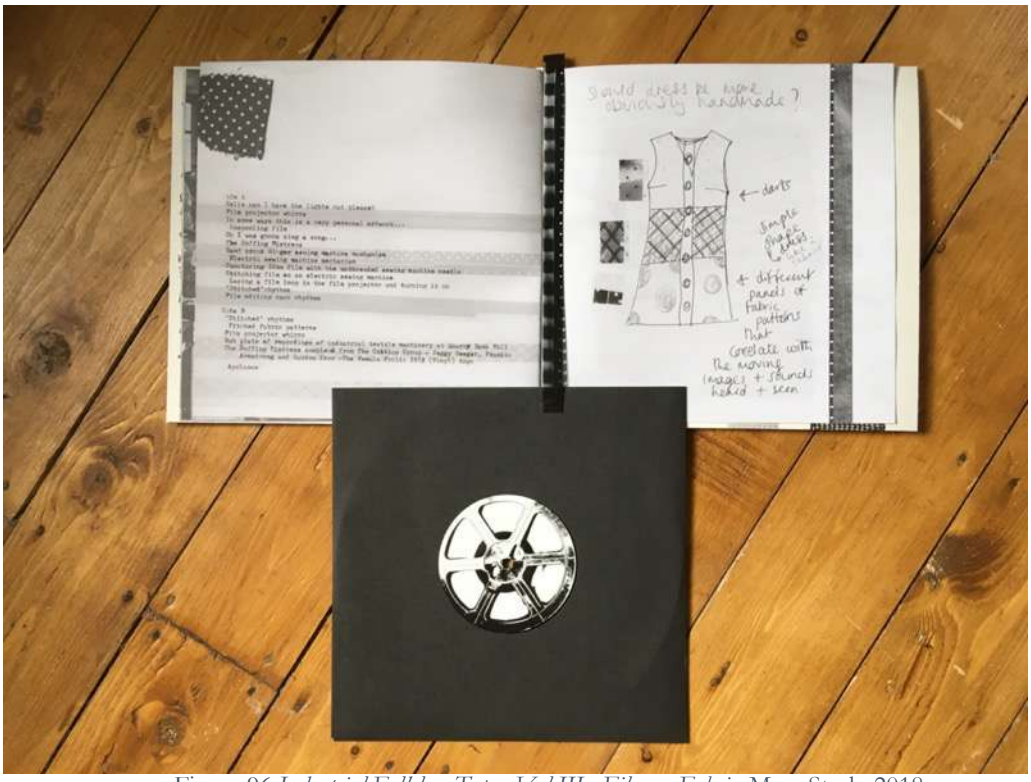

Figure 96.*Industrial Folklore Tapes Vol III : Film as Fabric.* Mary Stark, 2018

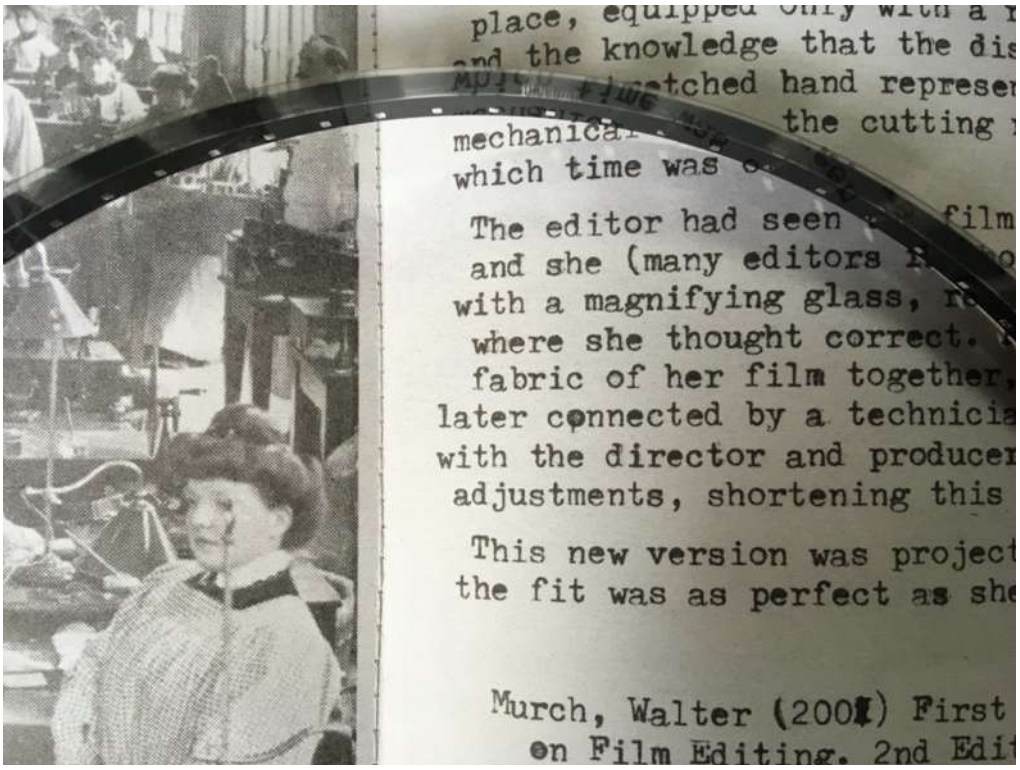

Figure 97.*Industrial Folklore Tapes Vol III : Film as Fabric.* Mary Stark, 2018

Chapter 5: Conclusion

This chapter has detailed the second and third stages of the investigation, discussing how my method of sampling elements of *Reel Time*: dialogue between the sewing machine and the film projector; reflecting light from film; relationships between film and the body; autobiography; and site-specificity.

I have demonstrated how my practice of editing stitched rhythms and pitched patterns is informed by the dressmaking process, by working with live sound; short film loops and multiple film projectors. This method revealed the common gesture of wearing film and wearing a tape measure shared by film editing and dressmaking.

I have developed Nicolson's concern with reflecting light from film by hanging a mass of film on the editing rack and lighting it with an unspooled film projector. This can be contextualised as a new form of projection in expanded cinema, in line with Lampert's discussion in chapter two (Lampert, 2013: online). My desire to reflect light from lengths of film in expanded cinema performance led to identifying that both film and fabric are hung up to dry on a line.

I have taken forward the way that *Reel Time* emphasised relationships between film and the body by measuring and wearing film on my body, as well as relating the patterned clothing I wear to the pitched patterns in the performance. Nicolson used her familiarity with the sewing machine, which had been passed down from her mother, to find her own way with filmmaking materials and apparatus. I have built on this autobiographical element of *Reel Time*, by the actions I carry out, the use of my voice and the clothing I wear in *Film as Fabric* being informed by the tradition of textile practice in my family.

I have developed the way that *Reel Time* took place in a former industrial space, enriching *Film as Fabric* by frequently performing in sites formerly used for the production of cloth and thread. This site-specific element informed research into sound associated with textile practice, which at first seemed to veer off on a tangent. However, this led to new insights into Nicolson's interest in combining sound, stitch and performance art, opening discussion of her contribution to sound art, as well as her pioneering practice connecting textile practice, performance art and experimental filmmaking.

Finally, I have shown how my approach to performance preparation, and particularly documentation, is informed by Nicolson's but is distinctly different because I have created a continuous loop between analogue/ digital technologies, haptic/ optic modes, and performance/documentation to *craft* the expanded cinema performance *Film as Fabric*. I have presented a comprehensive body of documentation of the numerous iterations as a website, a record release and this thesis producing a robust, rigorous artistic strategy which achieves the research aim of establishing existing connections and creating new links between textile practice and experimental filmmaking through expanded cinema performance, to build on *Reel Time* and recognise women's work in the cutting rooms of early cinema.

Conclusion: contribution to knowledge

This comprehensive practice based examination of the relationships between textile practice and experimental filmmaking makes an original contribution to knowledge by showing existing connections and creating new links between the fields through an expanded cinema performance *Film as Fabric*. In addition to the live work, my multi-mode approach has resulted in this thesis plus performance documentation in the form of a record release and a website. These elements collectively contribute a divergent historical narrative to re-contextualise already existing artworks and support future exchange between the fields.

Analysis of existing connections informed *Film as Fabric*'s intention of interrogating and re-claiming the idea of film as fabric and editing as stitching as a way to build on *Reel Time* and recognise women's work, particularly in the cutting rooms of early cinema. My live presence as a female artist treating film as fabric and stitching it on the sewing machine, cutting it with dressmaking scissors, measuring and wearing it on my body is intended as feminist critique in expanded cinema. The process of making, actions, gestures and interaction with materials and mechanisms all highlight existing relationships and create new links between textile practice and experimental filmmaking.

In chapter one, *Film as Fabric* defined and developed three key historical connections between the fields:

- Terminology, techniques and apparatus from textile practice were adopted by filmmaking in the late nineteenth and early twentieth century, such as the intermittent mechanism of the sewing machine being used in the film projector
- Many women worked in the cutting rooms of early cinema and their work was seen as similar to cutting and stitching cloth
- *Reel Time*, a seminal expanded cinema performance in 1973 by Annabel Nicolson, in which a huge loop of film was punctured with the unthreaded sewing machine needle

Film as Fabric **has created new links between textile practice and experimental filmmaking:**

- A glossary of terms shows the linguistic links between textile practice and experimental filmmaking
- A contemporary field of practice is outlined with a particular focus on analogue filmmaking. These artworks have not yet been related to one another or to the interdisciplinary narrative presented in chapter one
- The methodology *crafting* expanded cinema - the ongoing act of refining a live work by repeatedly performing and the intention of engaging textile practice as feminist critique
- The practice of transforming fabric and stitch patterns into moving images and optical sounds - stitched rhythms and pitched patterns
- The live practice of editing stitched rhythms and pitched patterns into loops according to a method informed by dressmaking
- The application of the embroidery technique of sampling as a practice based research method in expanded cinema performance
- The use of clothing, fabric and stitch in expanded cinema informed by my family history and a specific site
- The definition of similarities between film editing and making a garment

Summary of conclusions by chapter

Analysis of the three connections in chapter one offers a divergent historical narrative to re-contextualise existing artworks and support future interdisciplinary dialogue. This contributes to broader histories of filmmaking, but specifically to that of experimental and early cinema. An important outcome of the study was that the first two historical connections are linked. After identifying that the materiality, terminology, techniques and apparatus of textile practice overlap most with that of analogue film editing, I concluded this is indicative of women's work in the cutting rooms of early cinema. I have also shown that their labour has been largely overlooked and associations of stitching with editing have been used to downplay women's contribution to histories of cinema.

In response, in the first chapter of this thesis, I offered an impression of the type of work undertaken by cutters and showed its importance in the development of the cinema industry. I also built on Wright's idea that female film editors undergo 'double invisibility' observing that women's work in the cutting rooms of early cinema is now further concealed due to the obsolescence of analogue film and the wide use of video editing software, which further separates film editing terms from their material origins and gendered associations. Chapter one concludes with a glossary of terms shared between textile practice and experimental filmmaking showing their linguistic links.

Chapter two showed how artists apply textile practice to experimental filmmaking expanding both fields and producing original works. It also concluded that pre-mechanical film editing practices, closely related to women's work as cutters, such as measuring film with the body (Murch, 2011, p. 79), are now re-surfacing in contemporary works, with *Reel Time* an ancestor of this turn. My analysis in the second chapter built on Smith's discussion of the importance of the artist's body in expanded cinema (Smith, 2015, pp. 1–16) and her term 'full body film' describing experimental works made by substituting industrial filmmaking machinery for the artist's body (Smith, 2012, pp. 42–47). I observed that expanded cinema performance is a way to show the significance of bodily gestures involved in analogue filmmaking, which are typically hidden and are now also obsolete so in danger of being forgotten altogether. I note that artists might highlight the importance of their own bodies and apparatus in expanded cinema performance by looking towards tactile performative methods in sound artworks.

Chapter three detailed how developing *Film as Fabric* has entwined textile practice and experimental filmmaking in a new methodology *crafting* expanded cinema. This chapter demonstrated how the research was underpinned by a feminist intermedia post-materialist theoretical framework undertaken in three stages.

1) Informed by: Sennett's domain shift theory; feminist critique of histories of art; the theory and practice of craft as feminist intervention; and structural/materialist film theory, the first stage aimed to analyse and disrupt dominant language and prevailing narratives by examining historical relationships between textile practice and experimental filmmaking and testing how their materials, apparatus, and techniques might be combined. This resulted in the creation of hybrid tools, objects and a range of optical sounds and moving images: pitched patterns and stitched rhythms.
2) The development of presenting pitched patterns and stitched rhythms as expanded cinema performance, taking *Reel Time* as point of departure, was driven by: feminist discussion of textile practice and its historical links with both the silencing and expression of female voice; the way that two feminist social movements engaged fabric and stitch in loud performative political strategies; and the idea that the repressed connections between textile practice and experimental filmmaking are evidence of women's work as film cutters in early cinema, who have undergone multiple layers of invisibility.
3) Finally, I questioned how to present documentation of numerous iterations of the expanded cinema performance *Film as Fabric* and constructed an intermedia historical narrative by writing this thesis, driven by: Elwes' idea that women's performance will be lost if it is not documented; Rhodes theory that women need to write their own histories and contexts for their work; as well as Schneider's idea of the body as a living archive and performance as a mode of memory.

Chapter three positioned Nicolson's *Reel Time* within an historical narrative connecting craft and performance art[124]. This builds on Elwes' discussion of the radical performative

[124] I was selected to present a paper titled *Re-locating Reel Time* at a *Stage-Craft: Craft in Performance* a conference at University of the Creative Arts scheduled for May 2020 and currently postponed due to Covid-19. I have also documented works by three artists active in this emergent field Lynn Setterington, Jennifer Reid and Hannah Leighton-Boyce.

strategies used by the Suffragettes and Greenham Common Women's Peace Camp. However, *Reel Time* is best known in experimental and expanded cinema, not in textile practice, even less so, in the broader field of craft. Therefore, this investigation seeks to recognise *Reel Time*, as well as a later performance by Nicolson based upon hand stitching *In the Dream I was Wearing Something Red* (1981), as valuable to this new field.

As an artist with a craft background who has moved into expanded cinema performance, I notice tension between the immateriality and ephemerality of performing live and the deep-rooted desire to craft an object. Chapter three showed that this artistic perspective has resulted in the creation of a live work that has been crafted through repeated iterations over a number of years, and a carefully refined body of analogue and digital performance documentation. I reflect that digital methods and the internet were important in the development of *Film as Fabric*, a work that conversely has been based upon foregrounding obsolete technology.

Chapter four shows how I have created new links between textile practice and experimental filmmaking that build on Nicolson's *Reel Time*. Combining the materials, terminology, techniques and apparatus of the two disciplines resulted in hybrid tools - the editing rack - and performed gestures - wearing film around my neck like a tape measure. It led to the amalgamated practice of transforming fabric and stitch patterns into moving images and optical sounds with two methods. To reiterate, stitched rhythms involve puncturing the soundtrack area of clear film leader with the unthreaded sewing machine needle to create a variety of pattering beats of different speeds. Pitched patterns are produced by making photograms from fabric and lace ribbon and result in a range of textured low, medium and high tones. This contributes specifically to camera-less and direct experimental filmmaking theory and practice, as well as to expanded cinema performance. Generating sound with the sewing machine and the film projector led to new insights into the sounds and the shadows of the audience's bodies in *Reel Time*.

Chapter five provides new insights into Nicolson's interest in combining stitch, sound and performance art, as well as her contribution to sound art in the 1970s and 80s. It shows how combining textile practice with expanded cinema opened up concerns with

narrative and site-specificity, as well as offering a new form of projection based upon reflecting light from film. I identify that both film and fabric are hung to dry on a line, cut to measurements of the body and worn on the body. *Film as Fabric* involves pitched patterns and stitched rhythms being cut to body measurements and spliced into loops live using a sequence of actions informed by dressmaking. I extend examination of the importance of the artist's body in expanded cinema into recognition of the significance of the artist's clothing. By working with clothing, fabric and stitch as symbolic of my family history and the industrial heritage of Manchester in expanded cinema, I contribute to post-materialist discussion of the re-emergence of narrative in this field.

Reel Time

Film as Fabric makes an original contribution to knowledge by analysing and building on *Reel Time*. Until this study, practice based investigation of *Reel Time* and attempts at bringing together the sewing machine and the film projector in a live context were scarce. Artists developed aspects of *Reel Time* but they had not been formally related to one another or to the historical narrative presented in this thesis. This study now recognises *Reel Time* as an ancestor of:

- the re-emergence in experimental and expanded cinema of early filmmaking practices, often negotiated with the human body rather than machines
- the development of new forms of projection in expanded cinema created by shining light at photochemical film, rather than projecting it conventionally
- the emergent wider field concerned with combining craft with performance art and the specific area of working live with sound and stitch
- the post-materialist turn to narrative in expanded cinema

Film as Fabric develops the importance of Nicolson's live presence and visibility of stitching film in *Reel Time*, by highlighting my presence handling, stitching, splicing, wearing and projecting film. It also builds on her work combining sound, stitch and performance art. My research has been recognised in recent publications showing it has achieved the aim of establishing existing relationships and creating new links between textile practice and experimental filmmaking. It has been credited for building upon concerns with material specificity, the body and technology that were first raised by artist filmmakers in the 1970s. It has been repeatedly observed that the performance builds upon the work of feminist artists from that period, who engaged subjective female experience to make political statements and challenge prejudices about craft. In particular, *Film as Fabric* has been acknowledged as a legacy of Nicolson's *Reel Time*[125].

[125] See further proof of contribution to knowledge in appendix

Directions for future research

Reel Time

It is important to note that the multi-layered nature of *Reel Time*, my particular perspective, and the boundaries of this research mean that future interdisciplinary research is still needed into Nicolson's practice. This thesis only scratches the surface of her work with sound in performance art. There was not been space to talk about her work with shadows in *Reel Time* and how this informed *Film as Fabric*. There is a question about the significance of Nicolson's positioning her body in *Reel Time*, I have always faced the audience when stitching in *Film as Fabric* whereas Nicolson faced away looking towards her projected image. An enduring question remains about a full re-staging of *Reel Time* with her permission and/or collaboration.

Film as Fabric

Although I have offered a thorough analysis of relationships between textile practice and experimental filmmaking, my investigation is not exhaustive[127]. In single screen and expanded cinema works, the patterned fabrics turned into optical sounds and moving images could bring further layers of meaning, with particular reference to how, where and by whom they are made. Making double exposures with different sized buttons to mask areas of the filmstrip shows further possibilities for the development of creating optical sounds and moving images from patterned lace ribbon. The pre-set stitch patterns on the sewing machine in combination with varying the stitch length and width and using the threaded and unthreaded needle may create a further range of stitched moving images and optical sounds. The way that analogue film, the construction of fabric and the process of stitching offer visible measurements of time needs further focus.

In future, another artist might attempt to re-stage or sample *Film as Fabric*, for which this thesis would certainly be of value. My approach to performance documentation suggests future directions in terms of entwining digital and analogue technologies and is offered for other artists to use and develop . Possibilities for future research are significantly indicated by the methodology of *crafting e*xpanded cinema performance specifically, as

[127] For example, I have recently learned of Joyce Wieland's 16mm film *Handtinting* (1967) which pre-dates *Reel Time* and includes sections of leader punctured with sewing needles.

well as in the broader field of combining craft and performance art. My method of sampling *Reel Time* offers a model for those in performance studies wishing to closely examine live works. Sampling involves copying and repeatedly examining central and peripheral, even tiny, elements of another work as a way of committing them to memory and storing them for future use, but also as a way of generating new practice.

In this study, sampling has been a valuable research method in terms of analysing Nicolson's *Reel Time* specifically, but the research method is also transferable to the wider field of expanded cinema and beyond to performing arts studies. As a practice based research method, sampling is both analytical and generative because removing a small element from its original context, repeating and slightly altering it leads to the creation of something new. A sample is often recognisable as from an existing source, therefore as well as offering a way to learn about past works, it is also a practical way of remembering them.

Film as Fabric is rigorously informed by Nicolson's *Reel Time*, but my focus on optical sound as a way to further connect the sewing machine and the film projector has taken an entirely different direction. Optical sound depends upon the material presence of the filmstrip, the thing that Nicolson set out to destroy in *Reel Time*. *Film as Fabric* has become about a continuous process of constructing and recycling. Whereas Nicolson's *Reel Time* connected the sewing machine and film projector but was characterised by disfunction and interruption, *Film as Fabric* is based upon flow and dialogue between the processes of editing a film and making a garment. This has resulted in a live making process based upon hybrid techniques, tools and performed gestures that transcend the boundaries of both disciplines.

Both *Film as Fabric* and *Reel Time* need to be read as reflections of the environment in which they were made. In the 1970s, Nicolson was involved in the London Filmmakers Co-op and had access to film lab facilities enabling her to easily have a new print made for each performance of *Reel Time*. Today, making film prints is expensive and difficult to access in the UK. Every small piece of film I create is a precious fragment. I use minimal resources, a characteristic that aligns it with post-materialist filmmaking practice (Doing, 2017b, p. 87).

My research has shown how photochemical experimental filmmaking and expanded cinema can become rooted in and connected to specific sites that are not purpose-built cinemas, artist film labs or art galleries. I signal this as an important direction for the field of experimental film as analogue filmmaking becomes increasingly marginalised. *How have intermedia relationships been formed by photochemical film converging with seemingly unrelated practices and/or being rooted in a particular site? How might new intermedia experimental photochemical filmmaking practice be formed through concerns with site-specificity?*

During this research, I have been influenced by spending time in two particular sites in Canada. At Cine-Cycle in Toronto, Martin Heath has fixed and maintained bikes alongside projecting film since 1991, so the two activities have blended in fascinating ways. Special screenings involve films shown with a bike powered film projector. Heath has film rewind arms that use a chain mechanism similar to that of a bike. His passion for bikes and film projectors, and his mechanical skill and experience working with both machines, have been brought together over nearly thirty years.

Film Farm in Mount Forest, Ontario, established 25 years ago in 1994. Since then many crossovers between the farm environment and experimental filmmaking have formed. A barn temporarily becomes a film lab, with the sounds and smells of animals and birds drifting in the air. Buckets of walnuts slowly turn into film toner while lengths of freshly processed film flutter on a long washing line. A major result of experimental filmmaking happening in this site has been a strong move towards hand processing film with plant-based developers, driven by an ecological awareness of the harshness of traditional photographic chemistry, which is acutely intensified by the immediate surroundings.

In the autumn of 2016, I moved to a former working farm in Rossendale and in 2018 established Analogue Farm Community Interest Company[128]. We have set up a darkroom in an old dairy and a cinema in an old barn with straw bales for seating. The barn has a sloping floor, originally made to aid the cleaning of animal waste, which creates a perfectly raked cinema. In May 2019, Karel Doing led a phytogram[129] filmmaking workshop for

[128] with my partner David, his sister Rachael and her partner Matt. See analoguefarm.com

[129] A method which uses the internal chemistry of plants to create photographic images on film emulsion

twenty people at Analogue Farm. The *Film Farm* collective[130] supported the delivery of Doing's workshop and screened their work alongside his. I now understand Analogue Farm as a continuation of the examination of site-specificity in relation to photochemical filmmaking and expanded cinema (fig.98), which has been a key concern in this investigation.

Figure 98.Bucket of 16mm film with freshly laid hen's eggs at Analogue Farm. Mary Stark, 2019

[130] Phil Hoffman, Dierdre Logue, Rob Butterworth, Scott Miller Berry and Terra Jean Long

Plan of potential developments for the next performance of *Film as Fabric*

- Begin the performance with *Film as Fabric: an experiment* as an even more direct referral to *Reel Time*
- Make a new patterned dress/tabard/apron to wear and use it to signal the start
- Introduce *Film as Fabric* as I unwind the reel of film onto the editing rack
- Project onto a large piece of white fabric creating a loop from fabric to film to fabric again. Photograms of fabric turn cloth into film, but by projecting onto a fabric screen, the lace ribbons are returned to their original material origins
- When approaching people to measure them with film go into the audience and bring someone forward
- Use a contact microphone on each film projector
- Stitch splices with the threaded sewing machine needle

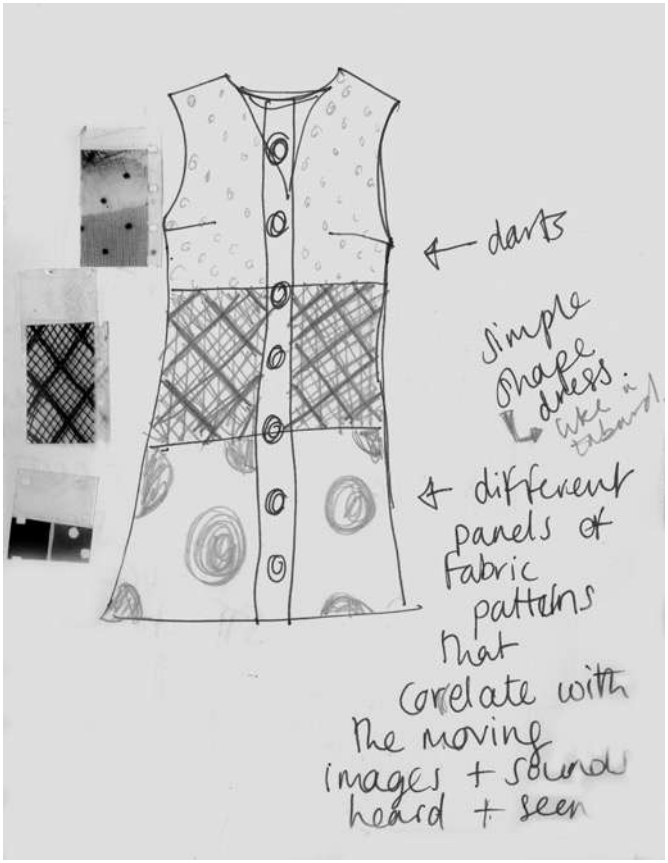

Figure 99.Design for a dress to be worn as part of the next *Film as Fabric*. Mary Stark, 2017

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Appendix

Performances 2012-2017

ORAM awards at the Turner Contemporary, Margate

Radio Revolten International Radio Art Festival, Halle, Germany

Full of Noises Festival Book Launch, Manchester

Supernormal Festival, Oxfordshire

CineCycle, Toronto and Film Farm, Ontario

PROGRESS at Rogue Artist Studios for Manchester Histories Festival

Contact Festival of New Artist Film and Video, London

Sound is Sound is Sound, The Albany, London

Film Material presents...Bristol Experimental and Expanded Film at Rogue Studios, Manchester

Edges and Intervals: Contact Film Screening, London

Folklore Tapes Presents, London

Full of Noises Festival of New Music and Sound Art

Video Jam and Manchester After Hours Performance in the Textile Gallery at The Museum of Science and Industry

Hood Faire label launch, Third Floor Studios Exhibition Space, Manchester

Solo show, Third Floor Studios Exhibition Space, Manchester

One of two performers in Annabel Nicolson's *Matches* re-staged by Collective-Iz at Apiary Studios, London

Film as Fabric, Lace and Thread Video Jam SPACES commission shown in Leeds, London and Liverpool

Film as Fabric, Lace and Thread, a solo show of sculpture, performance and expanded cinema at CineCycle,Toronto

Anual 2013 La Escocesa, Barcelona

Mono No Aware VII, New York

Equals at Blank Media Space, Manchester

Be Live, The Penthouse NQ, Manchester

Critical Costume at Edge Hill University

Releases

Industrial Folklore Tapes Vol III: Film as Fabric (2018) 10-inch vinyl record

Summoning Ghosts of Industries Past (2014) cassette and digital release

Papers

F*ilm as Fabric: Female Editors in Early Cinema* conference presentation at Experimental and Expanded Animation Conference at the University for the Creative Arts in Farnham

Further proof of contribution to knowledge and recognition for the research

Film as Fabric was recognised through being selected for a funded artist residency at the Liaison of Independent Filmmakers of Toronto. In 2015, an interview by the film programmer and writer Samuel La France was published online by Cléo Journal of Film and Feminism (La France, 2015: online). *Film as Fabric* was included in Contact, a festival of new experimental film and video that took place in London in May 2016 curated by Simon Payne and Andrew Vallance. The weekend included screenings and performances by established artists who began working in the 1970s, such as Malcolm Le Grice, Lis Rhodes and Guy Sherwin, as well as works by those whose enquiries have developed more recently.

The artist filmmaker and curator Simon Payne referred to an earlier version of this performance, *Film as Fabric, Lace and Thread* (2014) in his book chapter discussing experimental film and video in which lines and linearity are defining characteristics, in which he relates this area of practice to Tim Ingold's theory of lines (Ingold, 2007, p. 160; Payne, 2018, p. 28). Payne recognises *Film as Fabric* as referring more broadly to craft, as well as specifically to textile practice. He positions it amongst a broad scope of works made by artists from the late 1960s, encompassing performance, installation and gallery-based work.[131]

The experimental film theorist Lilly Husbands discusses Annabel Nicolson's *Reel Time* and my own work in terms of craft as critical feminist enquiry in experimental animation. Like Payne, Husbands contextualises my practice in relation to Nicolson's performance in the 1970s, as well as a broader field of contemporary works, including Jodie Mack's animations made with fabrics. Husbands observes that the legacy of Nicolson's *Reel Time* is evident in my work investigating the materiality of celluloid as a form of fabric.

[131] He discusses Hans Scheugl's performance *ZZZ Hamburg Special* (1968) as the earliest work that demonstrates this analogy, in which a spool of thread is run through the projector instead of film. Payne also refers to William Raban's *Take Measure* (1973), Vicky Smith's *Bicycle Tyre Track* (2014), Sandra Gibson and Luis Recoder's *Light Spill* (2005), Rosa Barba's *Stating the Real Sublime* (2009–2011), NS Annabel Nicolson's *Reel Time (*1973.

In her chapter about how artists in the 1970s engaged the aesthetics and politics of material specificity, the experimental film theorist Kim Knowles further extends contextualisation of *Film as Fabric* in terms of continuing dialogue around material-specificity, and the body and technology, that began in the 1970s in works such as Annabel Nicolson's *Reel Time* (1973), Gill Eatherley's *Aperture Sweep* (1973) and Guy Sherwin's *Man with Mirror* (1976). Knowles also relates my research to contemporary performance works by Greg Pope and Sally Golding. She discusses the performance *Film as Fabric* and an earlier installation *From Fibre to Frock* (2013) as, "highlighting the relationship between filmmaking as labour and film as texture" (Knowles, 2017b, p. 116).

My work features in a book by Jonathan Walley *Cinema Expanded: Avant-Garde Film in the Age of Intermedia* published by Oxford University Press in 2020. Walley's book is the first comprehensive historical survey of expanded cinema since the 1970s, and a revision of the concept both historically and theoretically. It includes nearly 200 individual works made between the 1960s and 2019, many of them closely analysed, including some of my films and film installations. Walley discusses my works, and some of my writing, in a chapter on filmic objects, specifically in a section on weaving with film.

These theorists offer perceptive critical contextualisation of my investigation viewing it as a development of experimental film works in the 1970s. Their analysis aligns with my critical examination of the performance, but also confirms and extends it significantly by linking it to a broad scope of historical and contemporary works and to Ingold's theory of lines. This critique in recent publications confirms that this research has achieved the aim of contributing original knowledge to the field of experimental and expanded cinema.

The study has also contributed to the field of sound art and experimental music through numerous performances, most notably at Radio Revolten International Festival of Radio Art in Hallé, Germany. In 2016, a limited edition tape cassette of a performance *Summoning Ghosts of Industries Past* (2015), which experimented with music associated with textile practice, was released by Fractal Meat Cuts and recognised, "as a powerful evocation of Britain's industrial past, with an emotional heft that comes from juxtaposing the sounds of the heavy machinery that drove the first wave of industrialisation in the north of England with those of the ordinary men and women who

operated it" (We Need No Swords, 2016: online). Further recognition for this research's contribution to innovation in sound has been granted through an Oram award in 2017[132]. The award contributed to the creation of the *Industrial Folklore Tapes Vol III: Film as Fabric* record release in 2018. My work has since been recognised through a feature in The Wire magazine (Dixon, 2018: online). The record release *Film as Fabric* was reviewed in The Wire and by A Closer Listen, who selected it as one of their top three records of 2018 for best packaging (A Closer Listen, 2018: online).

In the earlier stages, this research was shared through part-time teaching on the Textiles in Practice degree at Manchester School of Art. More recently, in December 2018, an interview and a feature about *Film as Fabric* was published in Knitwit magazine. Contributing to discussion of textile practice is recognised as significant for future dissemination of the research, which will begin with performing *Film as Fabric* at the next Textiles and Place conference in Manchester.

[132] The awards were created by the PRS Foundation, the UK's leading funder of new music and talent development, together with The New BBC Radiophonic Workshop to celebrate innovation in music, sound and related technologies by the next generation of forward- thinking women, trans and non-binary artists.

Practice based research 2006-2012

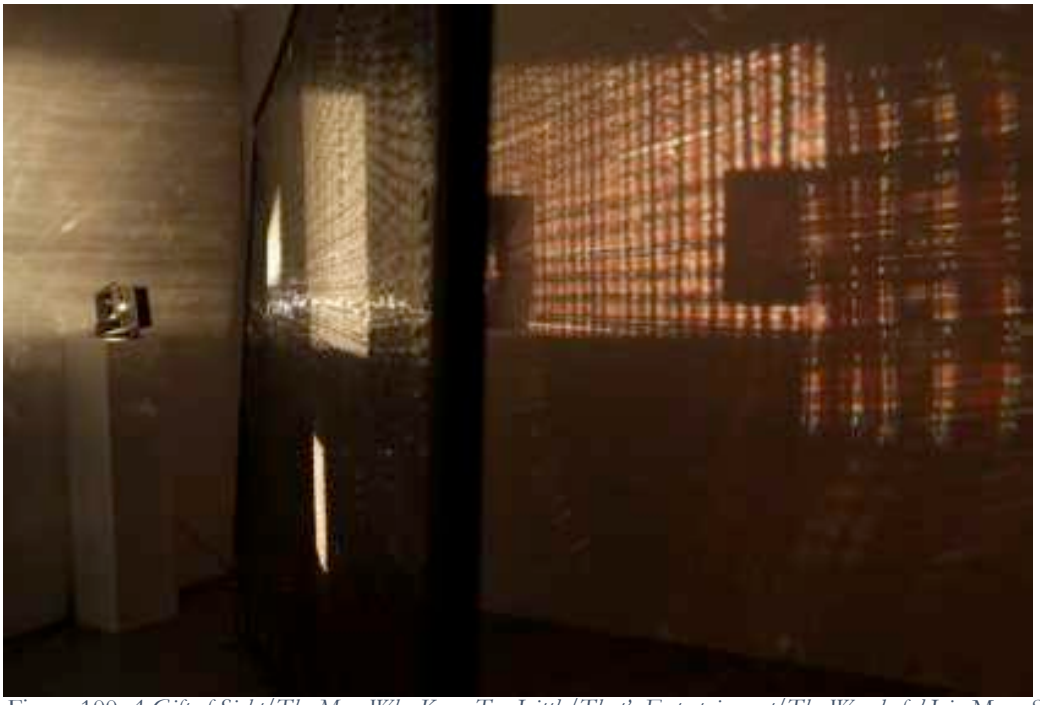

Figure 100.*A Gift of Sight/The Man Who Knew Too Little/That's Entertainment/The Wonderful Lie.* Mary Stark, 2012

From 2006-2012 my practice-based research broadly focused on relationships between textile practice, photography and the moving image. Editing video and sound on a computer led to my initial thinking about editing as stitching, but the digital process meant that the joining of moving images and sounds remained as an intangible concept. However, the idea of film as fabric and editing as stitching became more focused after I first handled a reel of 8mm film in 2010. I held it up to the light, looked at the ribbon of tiny photographs and immediately understood it as patterned fabric-like material to cut, weave and stitch. In that moment, I made a connection between the disciplines of textile practice, filmmaking and photography, and this has continued to drive my artist filmmaking practice ever since.

During the next two years, research comprised of weaving with found footage and then using woven film as photographic negatives to print in the darkroom. This developed into sculptural installations lit by unspooled film projectors, such as *A Gift of Sight/The Man Who Knew Too Little/That's Entertainment/The Wonderful Lie* (2012). Weaving film was driven by concerns with time as tangible amounts of material, and emphasised the materiality of the filmstrip, showing it as a thread in space, as well as a shimmering

reflective surface. *A Gift of Sight* involved turning on four projectors one by one, with my presence necessary for the work to be realised, but for the most part I worked laboriously in my studio before finally assembling the work in an exhibition space. It took five days to weave and I used an interval timer on my digital SLR camera to make a time-lapse video documenting the process. The practice of working physically with photochemical film, but documenting and developing the work through digital technology, made me aware that my studio practice held significant meaning that might be better shown through performance. This hybrid analogue/digital practice has continued to have a key role in the development of *Film as Fabric* over the next seven years from 2012-2019.

The significance of clothing worn to weave film in my studio

In 2012, I spent seven days weaving film *A Gift of Sight/The Man Who Knew Too Little/That's Entertainment/The Wonderful Lie*. I documented the process by taking photographs using a digital camera on a tripod with an interval timer. In addition to the installation, I then edited the hundreds of photographs into a time-lapse video. The video documents a number of changes in my clothing, shows time passing and emphasises the duration of my labour-intensive weaving process. Later I made *Star Wars a New Hope and the Empire Strikes Back* (2012) using the same method of documentation. In the video, I wear a jumper handknitted by my mother, who I acknowledge for her contribution in the credits. Looking back, this signposts my more recent examination of how my clothing in *Film as Fabric* might represent the history of textile practice in my family and women's labour in early cinema.

Residencies and artist development

The Curfew Tower, Cushendall, Northern Ireland

'The Independent Imaging Retreat' otherwise known as 'Phil Hoffman's Film Farm' in Ontario, Canada

Artist in Residence at the Liasion of Independent Filmmakers of Toronto supported using public funding by the National Lottery through Arts Council England, Canada Council for the Arts and MIRIAD

Artist in Residence at La Escocesa Studios, Barcelona with financial support from MIRIAD

Attended Artists in the Archives at LUX, London, a seminar for artists and curators looking at the implications of artists' film and video in the archive

Cornerhouse Micro Commission with support from the Paul Hamlyn Foundation

Unspooling: Artists and Cinema an eight-week course at Cornerhouse, Manchester

Technical

Mechanical Reproduction Optical and Contact Printing at N.O.W.Here Film Lab, London

Handmade Emulsion: Creating Black and White Film Stock From Scratch workshop with Alex MacKenzie at N.O.W.Here Film Lab, London

2012 Expanded Cinema and Optical Sound course lead by Guy Sherwin and Lynn Loo at N.O.W.Here Film Lab, London

Further details of two artist residencies: La Escocesa and the Liaison of Independent Filmmakers of Toronto

In 2013 I flew to Barcelona with 100 feet of unexposed film and another 200 feet of found footage, which I bleached the content from. I brought my own splicer but had no projector. This residency took working with photochemical film in isolation to the extreme and forced me to consider how to work with very limited access to a film projector and film stock, deepening my contemplation of the obsolescence of photochemical film. I set up a makeshift dark room in my bedroom and made sculptures with film and fabric, rather than film to be projected. This gave me confidence that I could find ways of working with film in challenging situations. Then at the last minute, I met the filmmakers Luis Macìas and Adriana Vila, also known as Crater Lab, who lent me a film projector to show my work at the end of the residency. Visiting their lab, in a city in which I thought film was extinct, showed me the passion, determination and strength of experimental filmmakers working with photochemical film.

In 2014 I spent four weeks as artist-in-residence at the Liaison of Independent Filmmakers of Toronto (LIFT), which offers unparalleled analogue and digital filmmaking facilities to artists. This was an experience at the other end of the spectrum. Nearly every artist I met worked with photochemical film. I encountered analogue editing equipment I had never seen, had unlimited access to equipment and different kinds of film stock, and was suddenly living in the heart of a vibrant experimental filmmaking community.

Key relationships were formed with Martin Heath who runs the alternative cinema/bike workshop Cine-Cycle and with the experimental filmmaker Terra Jean Long, who worked at LIFT, and who had also become involved in the Independent Imaging Retreat, also known as Film Farm. In 2016, David Chatton Barker and I were participants at Film Farm. This was a week-long intensive artisanal filmmaking workshop in the Ontario countryside where twelve participants learn how to shoot, hand process, edit, tint and tone 16mm film. David and I also made a new film *Springs* (2016) in the dark room at LIFT and showed films and expanded cinema performances at Cine-Cycle in Toronto, most of which we made while at Film Farm.

Optical sound

When film is projected the sound is heard 26 frames after the projected image. 'Sync sound' can be mechanically created by exposing the sound and the image separately with a contact printer or by an industrial film lab who join images and sound in a final film print, as is the case with a conventional film with an optical soundtrack that has a waveform running its length, so complex scores and dialogue can be heard. When optical sound was invented in the 1930s, it was a major development in filmmaking technology that transformed the cinematic experience and brought 'sound-on-film' to audiences across the world, as well as capturing the attention of artists who began enquiring into its experimental potential(insert list). But by the 1950s optical sound was considered an outmoded form of recording sound and it was superseded by magnetic tape. Today, it remains a fascinating technology that artists continue to explore because it allows images to translate into sound.

Any mark, line, scratch or image in the soundtrack area of the filmstrip produces an optical sound. Different coloured film also makes optical sound. White and clear leader makes a hissing sound, while black leader creates no sound. Double perforated 16mm film makes a recognisable purring sound because it has sprocket holes along both sides of the filmstrip. Double perforated film shows how regular marks close together in the soundtrack area over a length of film create a sustained sound. Different aspects of the photographic image affect the volume and definition of the optical sound quality produced. Over or underexposed images create a quieter sound because the image has less contrast. If the image is blurred, so too the sound produced will be soft. When the image in the soundtrack area is sharply defined with high contrast between black and white, the sound will be loud and clear.

Performance Preparation

I prepare for *Film as Fabric* in my studio, which mainly involves gathering all the equipment that is needed. I make sure I have the right amount of 1/4inch jack cables and extension leads. I clean three film projectors and check they are running smoothly, test the main lamp and the optical sound. I check the sewing machine to ensure it is running well and has spare needles. I plug in the mixer and the record deck to see that they are working. I make sure I have enough splicing tape. I check through my projector maintenance kit, which comprises of pure alcohol for cleaning the projector, spare belts, bulbs, screwdrivers, oil, tweezers, cotton buds, a torch, and a pair of dressmaking scissors.

I check that I have a reel of black and white photograms of patterned fabrics and another of clear leader. I look through the film used in the last performance on rewind arms and edit it. I remove all the clear leader that has been punctured or 'stitched' on the sewing machine and group the different types of fabric patterns together. This viewing and editing process familiarises me with the images and sounds on the filmstrip. I sometimes watch the film as a continuous reel to get a sense of the sounds and images of fabric. Other preparatory tasks involve thinking about documentation, charging the batteries for the digital camera and sound recorder I use to record each performance. When I have made sure that all the kit is ready, I find ways to carry it to the car with the least trips possible. Loading and unloading the equipment is one of the most physical tasks involved.

Showing the labour of live performance

For a performance at Supernormal Festival in 2016 the space was not completely dark, meaning that the reflected light from the filmstrip was not visible. This usually striking visual part of the work was lost. I felt impatience from the audience, and it was not until the more active stages of the performance that I felt more relaxed. Later I had a conversation with someone about how I was uncomfortable on stage. This had been because: the space was not completely dark - I prefer complete darkness; I was on a stage - I prefer to be at the same level as the audience; sound bled into the space from the music festival – I prefer a dedicated quiet space in which to perform.

Some of it was due to the context, but some of it was also due to the nature of the expanded cinema performance and the way that unspooling film on the editing rack and stitching a rhythm live takes time. There is a delay between creating the sound and then hearing the result. Even at an experimental music festival, there is a sense that people want to be gripped and entertained. People are used to instant sound through pressing a button or strumming a guitar. I realised that I want to challenge the idea of performance as effortless, instead showing live performance as laborious.

I wondered if I should not start *Film as Fabric* by unspooling film onto the editing rack. I talked with David about the importance of this action. He said it's like I'm testing the audience, that there's a moment when they realise that I am going to unwind the whole reel and that they are just going to watch. But they are rewarded by the way it builds in activity and loudness. I worked in my studio timing how long it takes me to unspool the film from a reel and hang it on the edit rack. It only takes three minutes. This confirmed that I wanted to keep this action at the same point in the next performance.

Research into music associated with textile practice

Bele Yolanz – Esther Lamandier – Chanson de Toile Au Temps Du Roman De La Rose – 1983 (Aliénor)

Women weaving in medieval castles in France sung songs to express female desires, working with cloth and thread was a means of meditating on love and securing it. These songs in the form of written manuscripts are the earliest examples of music associated with the practice of working with fabric and thread.

Documentary recording of Waulking – Songs and Pipes of the Hebrides – 1952 (Folkways)

Recording made on an Outer Hebridean island by Polly Hitchcock

"One of the never ending activities of the island women was the making of woolen cloth for blankets and clothing. This involved many time consuming processes, after a shearing, the wool had to be washed, dyed, teased, carded, spun, woven and shrunk, and each of these operations was performed by hand. The last operation, the shrinking of the cloth, was a gay social occasion called a "waulking" and used to occur at least once a week. Today it is less often. A long table is set up and the heavy wet cloth is spread or laid down one side round the end and up to the other side. There are anywhere from five to ten women sitting down either side of the table. The thumping begins and they swing to the right picking up the cloth, then swing to the left passing their portion on to their neighbour with another thump on the table. The cloth is kept in constant circulation, the moisture gradually being beaten out or it. The rhythm of the workers is steadily maintained by singing. A leader sings a line, then everyone comes in with a refrain line which is usually a syllable chorus. The musical phrase itself is short and simple. Sometimes they have two different chorus lines which they alternate. One song may go on for fifteen minutes, then there will be a pause and the cloth is measured. Seven times the length of the middle finger is the desired width and may take an hour and a half of songs and labour to achieve, with an occasional re-soaking of the cloth. After a final tapping song when the cloth has at last been folded and piled on the table, a party follows and the men and children who watch on the sidelines join in for the food and dance that follows."- Polly Hitchcock

3. Lace Tells – Rhythms of Labour: Music at Work in Britain – 2013 (Harbourtown Records)

Lace tells were sung in Bedfordshire, Buckinghamshire and Northamptonshire in lacemaking schools for girls aged between 5 and 15 years of age. They were often counting songs that kept track of the amount of work carried out, as well as keeping rhythm or picking up the pace. These songs ensured strict discipline, but some of them include stories and symbols to ease the boredom during a long laborious process.

These recordings were made by Fred Hamer and are held at the EFDSS in London.

1 and 2 – Bletstoe Postmistress – Two different versions of Nineteen Miles to Little Red Dot
3 Unknown Singer – Three Pins
4 Unknown Singer – The Fox

4. The Canny Shepherd Laddie – Jimmy White – Rhythms of Labour
A rare recording by Peter Kennedy of a song sung by Jimmy White, a shepherd in Yetlington, Northumberland. Singing whilst shearing sheep, the bleating animals and snipping shears can be heard, and Jimmy talks to the sheep in between bursts of song. Perhaps stretching the definition of 'cloth' to include wool rather than woven thread, but just to beautiful a recording to leave out, which also highlights the way that work songs are often removed from the context in which they were originally heard.

5. The Bury New Loom – Harry Boardman – Deep Lancashire: Songs and Ballads of the Industrial North West – 1968 (Topic)
In the pre-industrial era, weavers working on handlooms in cottages interspersed writing and playing music with weaving cloth. Like the chanson de toile, this song connects the process of weaving with love and sex, in this case weaving terminology becomes overt sexual innuendo.

6. Various Recordings of Machinery at Quarry Bank Mill, Cheshire

In January 2015 David and I visited the cotton mill museum to record the working machinery, which includes spinning frames, carding machines, looms, water wheel, pistons and steam engines.

7. The Weaver and The Factory Maid – A.L. Lloyd – The Iron Muse: A Panorama of Industrial Folk Music – 1963 (Topic)
This song describes lost love and broken relationships as people left small villages and towns to work in factories and 'weave by steam'.

8. The Poor Cotton Wayver – A. L. Lloyd – The Iron Muse
A song of struggle, poverty and oppressed voices from the time of Industrial Revolution: "I've holden me tongue 'til I've near lost me breath."

9. The Handloom Weaver's Lament – Harry Boardman – Deep Lancashire
A song charged with political meaning, protesting about inequality between workers and employers in the textile industry.

10. The Weaver's March – The Celebrated Working Man's Band (Alf Edwards, Colin Ross, Jim Bray and Louis Killen) – The Iron Muse
In March 1817 5000 spinners and weavers working in the cottage industry gathered in Manchester and began marching to London in small groups with petitions asking the government to improve the cotton trade following the introduction of steam powered mills. The protesters carried blankets to signify their trade. They were violently stopped and turned back before Derbyshire. One person died, 27 people were arrested and many wounded. It is rumoured that one man 'Abel Cauldwell' or 'Johnathan Cowgill' reached London and handed over his petition.

11. Poverty Knock – Tom Daniel – Rhythms of Labour
Tom Daniel was a weaver from Batley in Yorkshire born in the early 1890s. This song was recorded in 1965 by Tony Green. Tom worked in a mill as a weaver after leaving school at the age of 11, which is where he learned the song, but it is though that he wrote or adapted the verses himself. Rather than bawdy humour, the sound of the shuttle now represents despair and poverty.

12. Jute Mill Song (Oh Dear Me) – Mary Brooksbank
13. The Spinner's Wedding – Mary Brooksbank

Mary Brooksbank (1897-1978) was born in Aberdeen and worked in jute mils in Dundee. She was a mother, worker, singer/songwriter and a political activist. Both songs by Mary Brooksbank are from the Rhythms of Labour CD.

14. The Merry Little Doffer – Harry Boardman – Deep Lancashire
The final few tracks on this tape tell of hardship but in a very joyful way.

15. The Betty Messenger Collection – Sarah Walker, Maggie McGivern, Dolly Mitchell, Aggie Smallwood, Mrs Gregg – Rhythms of Labour

Recorded by the American anthropologist Betty Messenger between 1969 and 1977 while she researched mill folklore in Belfast in the 1920s and 30s. These songs show that thriving culture developed in industrial communities. I love these songs because of all the mischievous laughter.

16. The Doffin Mistress – The Critic's Group - Peggy Seeger, Frankie Armstrong and Sandra Kerr - The Female Frolic – 1972 (Argo)

A song about female solidarity opens this brilliant album – The Female Frolic. My great grandma was a doffer in a cotton mill in Bolton. Her job was to take the full cones of thread from the spinning machine and replace them with empty ones ready for more thread to wind onto.

Singing Cloth: Side B

Your Greenham – Songs From The Women of Greenham – All Songs by The Women of Greenham Common plus Rebecca Johnson, Naomi Little Bear, Gillian Booth and The Fallout Marching Band

The women of Greenham common led a successful peaceful protest against nuclear weapons being brought to this site in the UK. They combined song with banners, quilts and thread woven through the fences as a major aspect of the protest from1981-2000.

Album available as a free download from http://www.yourgreenham.co.uk/#homepage

The Women of Greenham Common
You Can't Kill The Spirit
Sarah's Song – Can't Forbid You
We Are Women
Chant Down Greenham
Stand Up
Take The Toys From The Boys
Four Minutes To Midnight
Which Side Are You On
The Silos Song
We Are The Weavers
Greenham Lullaby

Sources:
Vinyl Records

Esther Lamandier – Chanson de Toile Au Temps Du Roman De La Rose – 1983 (Aliénor)
Songs and Pipes of the Hebrides – 1952 (Folkways)
Deep Lancashire: Songs and Ballads of the Industrial North West - 1968 (Topic)
The Iron Muse: A Panorama of Industrial Folk Music – 1963 (Topic)
The Critic's Group - Peggy Seeger, Frankie Armstrong, Sandra Kerr - The Female Frolic – 1972 (Argo)

CD and publication:
Rhythms of Labour: Music at Work in Britain – 2013 (Harbourtown Records)

Additional research undertaken into Nicolson's practice

I saw Nicolson's film *Slides* (1971) and documentation of *Reel Time* in the Film in Space exhibition at Camden Art Centre in London in 2012. I visited the British Artists' Film and Video Study Collection and the Women's Art Library in London to view Nicolson's work, as well as the V & A Museum to look at her artist book *Escaping Notice* (1977). I read her contributions to *Musics* magazine from 1975-1979, listened to the record *Circadian Rhythms* (1980) and read an unpublished essay by David Toop which details Nicolson's involvement in the performance.

So, what is the story I have projected onto *Reel Time*?

This tension between the contextual analysis of theorists and the ideas of the artist shows the need for critical self-awareness when examining artwork. This idea is echoed by Reynolds, who highlighted the danger of, "projecting the narrative one hopes for," onto performance documentation, which can equally lead to misinterpretation and misrepresentation (Reynolds, 2009, p. 17). So, what is the story that I have projected onto *Reel Time*? I have viewed the work from my position as an experimental filmmaker with a background in textile practice. I have positioned *Reel Time* within a historical narrative of relationships between textile practice and experimental filmmaking to support future exchange between the fields. I looked to *Reel Time* for evidence that the connections between the shared technology and terminology of experimental filmmaking and textile practice and the commonalities between the materiality of film and fabric supports my idea that there were deeper links between the fields. I have looked for practice-based ways to further develop the work Nicolson began when she highlighted the relationships between the sewing machine and the film projector, film and fabric. Rather than limiting contextualisation of *Reel Time*, I aim to open it to new intermedia analysis that in turn leads to further examination from other perspectives beyond the scope of this study.

Further notes and images showing plans for the next performance

After a performance, the filmmaker Vicky Smith commented that she thought I was going to put my dress through the film projector. This informed thinking about how I could make a dress that might further connect the moving images and optical sounds in the performance. The dress could be more obviously handmade than the one I currently wear, and have three different patterned bust, waist and hip sections that correspond with three different photograms of patterned lace ribbons. Could it even be made as part of the performance?

After informal conversations with people after a performance, they said they liked the way that when I sang *The Doffing Mistress* it interplayed with the sounds of the film projector and the sewing machine. Someone said it made them think about history that cannot be written. When I speak and sing as I move my voice is steady and confident. But the idea of my voice moving with my body informed thinking about how it is unlikely that for example, songs sung while making cloth were often not sung by someone standing still, because their body would have been actively moving as they carried out a task. Waulking songs are a good example of this. Reflecting on these ideas I will introduce the next performance as I unwind the reel of film onto the editing rack.

For most performances, I have preferred not to be restricted by the dimensions of a screen and have often projected onto white walls. However, for one performance[1] a huge piece of creased white fabric hung at the back of the stage allowing the projected images to be seen (fig.101). The material presence of the screen as a textile created another way to express the idea of film as fabric. The method of transforming patterned lace ribbons into 16mm black and white photograms allowed fabric to turn into film, but when I projected these photograms onto the fabric screen, they transferred back onto fabric again, albeit at a much larger scale and with the addition of movement. Depending on the site, I may incorporate project on a cloth screen in the next version of *Film as Fabric*.

Figure 101.*Film as Fabric* with cloth screen at the Kazimier Liverpool. John Lynch, 2014

After returning to analysis of the stitched splice shown in chapter one, I tested stitching two lengths of film together end-to-end on my sewing machine with the idea that it could be projected (fig.102). I found it is virtually impossible to stitch two ends of a loop of film together without using splicing tape to first hold them in place. I tested splicing the film, before machine stitching it in vertical lines and then removing the tape. But the sprocket hole area of the join separated making it liable to tearing in the projector. The most successful version of a stitched splice involved first double splicing two ends of clear leader with tape, and then stitching over the join, merging the filmmaking technology of splicing with the textile practice of stitching. This gives a robust result that runs in the projector, creating moving images and optical sound. I may introduce this technique to the next performance.

Figure 102.Machine stitched double spliced loop of clear film leader. Mary Stark, 2019

Screenshots of https: //marystark.wixsite.com/filmasfabric

Figure 103.Screenshot of https://marystark.wixsite.com/filmasfabric

Figure 104.Screenshot of https://marystark.wixsite.com/filmasfabric/performances

Figure 105. Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-oram-awards

Figure 106. Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-rogue-cinema

Figure 107.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-radio-revolten

Figure 108.Screenshot of https://marystark.wixsite.com/filmasfabric/filmasfabric/film-as-fabric-islington-mill

Figure 109.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-supernormal-festival

Figure 110.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-cinecycle

Figure 111.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-manchester-histories

Figure 112. Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-contact-festival

Figure 113. Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-beef-at-rogue-cinema

Figure 114.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-sound-is-sound-is-so

Figure 115.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-weaving-film

Figure 116.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-lace-tells-cafe-oto

Figure 117.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-full-of-noises-festi

Figure 118.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-hoodfaire-launch

Figure 119.Screenshot of https://marystark.wixsite.com/filmasfabric/ghosts-of-industries-past

Figure 120.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-spaces-video-jam-com

Figure 121.Screenshot of https://marystark.wixsite.com/filmasfabric/film-as-fabric-lift-residency-show

Figure 122. Screenshot of https://marystark.wixsite.com/filmasfabric/50-feet-of-sound-and-light-1-2

Figure 123. Screenshot of https://marystark.wixsite.com/filmasfabric/studio-practice

Figure 124.Screenshot of https://marystark.wixsite.com/filmasfabric/studio-practice

Figure 125. Screenshot of https://marystark.wixsite.com/filmasfabric/studio-practice

Figure 126.Screenshot of https://marystark.wixsite.com/filmasfabric/studio-practice

Figure 127. Screenshot of https://marystark.wixsite.com/filmasfabric/drawings-notes

Figure 128. Screenshot of https://marystark.wixsite.com/filmasfabric/drawings-notes

Figure 129. Screenshot of https://marystark.wixsite.com/filmasfabric/optical-sound

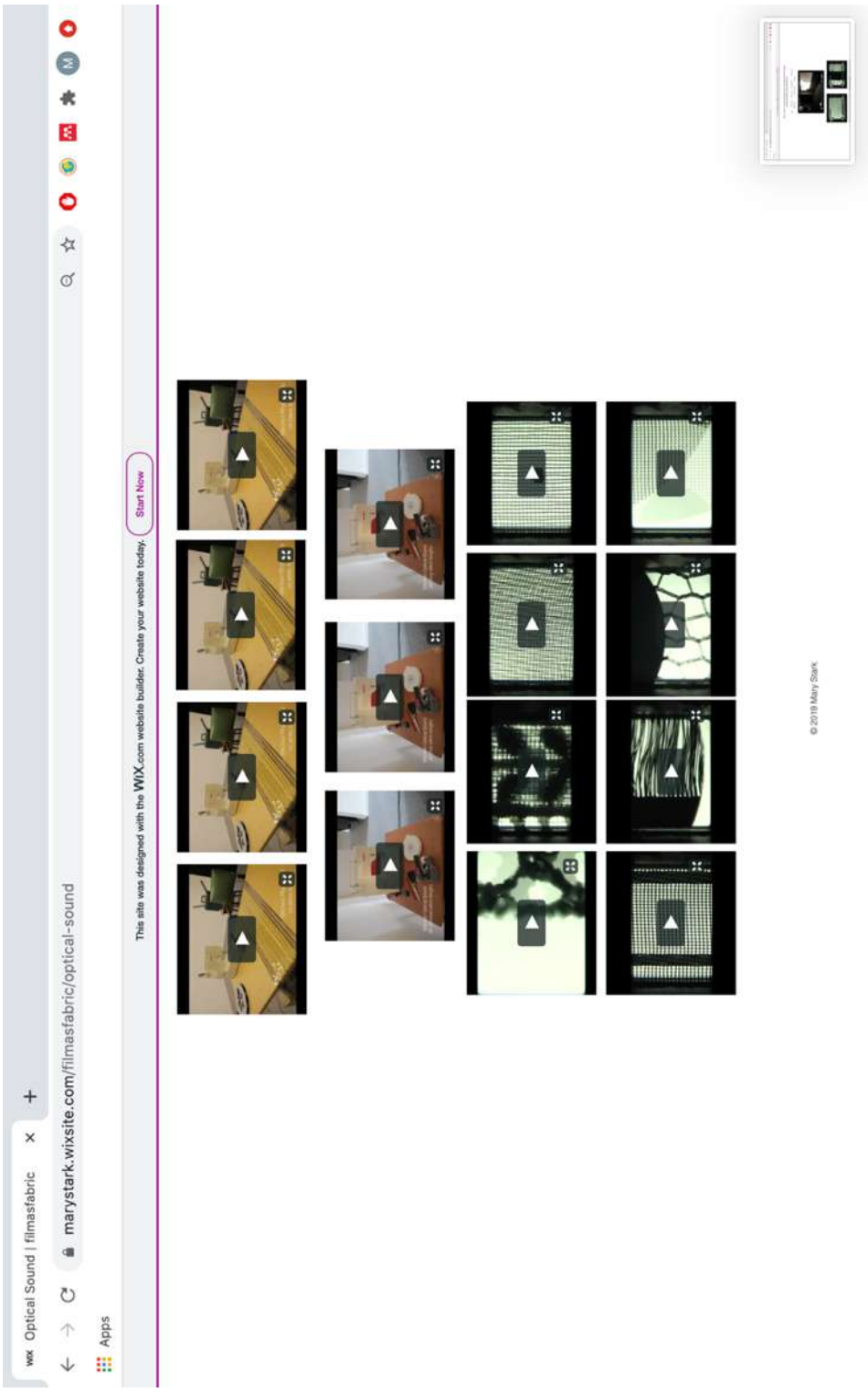

Figure 130.Screenshot of https://marystark.wixsite.com/filmasfabric/optical-sound

Figure 131. Screenshot of https://marystark.wixsite.com/filmasfabric/field-research

Figure 132.Screenshot of https://marystark.wixsite.com/filmasfabric/field-research

Figure 133.Screenshot of https://marystark.wixsite.com/filmasfabric/field-research

Figure 134.Screenshot of https://marystark.wixsite.com/filmasfabric/clothing-costume

Figure 135.Screenshot of https://marystark.wixsite.com/filmasfabric/clothing-costume

Figure 136.Screenshot of https://marystark.wixsite.com/filmasfabric/clothing-costume

Figure 137.Screenshot of https://marystark.wixsite.com/filmasfabric/releases

Figure 138.Screenshot of https://marystark.wixsite.com/filmasfabric/releases