

Crafting sustainable repairs: practice-based approaches to extending the life of clothes

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Abstract: Mass-produced ‘fast fashion’ has changed our relationship with clothing – cheap and easy to acquire, we are unlikely to take time to undertake simple repairs or address issues of maintenance, often caused or exacerbated by poor construction and low quality materials (see for example Goworek et al., 2012; You Gov, 2012; Fletcher, 2008; Birtwistle & Moore, 2007). Through complete lifecycle assessment, extending the useful life of clothes has been identified as the most significant intervention in reducing the impact of the clothing industry (Wrap, 2012). However, academic research emerging from both the UK and Scandinavia has identified practical, social, socioeconomic, systemic and psychological barriers that prevent consumers from performing even the most basic of repairs, and as a result damaged or worn items are discarded or taken out of active use (see for example Armstrong et al., 2014; Middleton, 2014; Cooper et al., 2014; Fletcher, 2013; Goworek et al., 2012; Laitala & Boks, 2012).

This paper explores the barriers to mending, different perspectives on the reasons behind them, suggested solutions and contemporary approaches to overcoming them. As textile designers and academics whose work is embedded in sustainable principles, we discuss the findings of our own practice-based approaches in relation to these, in order to consider the role fashion and textile designers can play in enabling solutions.

Research has been gathered through participatory design workshops and public engagement events, informed by review of historical, existing and emerging repair practices, and personal craft-led design praxis. We have explored ways to address the barriers, add value to the acts of repair by re-framing them as social design-led sharing activities, and discuss the potential of participatory craft praxis as a tool to motivate greater public engagement in repair practice.

Introduction

Mass-produced ‘fast fashion’ has changed our relationship with clothing; cheap and easy to acquire, consumers view fashion as ‘throwaway’ and are unlikely to undertake simple repairs or address issues of maintenance, often caused or exacerbated by poor construction and low quality materials (see for example Goworek et al., 2012; You Gov, 2012; Fletcher, 2008; Birtwistle & Moore, 2007). Through complete lifecycle assessment, extending the useful life of clothes has been identified as the most significant intervention in reducing the overall impact of the clothing industry and reducing the estimated 350,000 tonnes of clothing that goes into landfill annually (WRAP, 2012). However, academic research

emerging from both the UK and Scandinavia has identified practical, social, systemic and psychological barriers that prevent consumers from performing even the most basic of repairs, and as a result damaged or worn items are discarded (see for example Armstrong et al., 2014; Middleton, 2014; Cooper et al., 2014; Fletcher, 2013; Goworek et al., 2012; Laitala & Boks, 2012).

In 2014 the authors worked for Zero Waste Scotland and WRAP on a series of collaborative repair and upcycling events for the consumer facing ‘Love Your Clothes’ (LYC) campaign. The approach taken aimed to engage audiences in conversation on the care and repair of garments, encourage active

participation in craft based repair skills and showcase inspiring examples. The research and practice-based preparation for these events, as well as the resulting discussions, revealed some surprising and seemingly contradictory reasons about why people don't repair clothes.

This paper will first explore barriers to mending clothes, different perspectives on the reasons behind them, and suggested solutions to overcoming them. These will focus on roles that fashion and textile designers can play in enabling solutions and point to examples of repair practices led by contemporary designers, artists and activists such as Tom of Holland, Celia Pym and Amy Twigger Holroyd to illustrate these. Our own practice-based repair activities will then be introduced, followed by discussion of the findings: what they confirm and contradict, further insights that have been revealed, and the role fashion and textile designers. The potential of participatory craft praxis as a tool to motivate greater public engagement will be discussed, alongside associations between mending, craft and wellbeing.

Barriers to repair

Most commonly cited reasons for not repairing clothes are the financial cost involved, lack of time and skills. However, mending the results of wear and tear using stitch-based techniques - darning, sewing on buttons, and stitching hems, for example - require limited, low cost equipment, basic skill levels and little time (Middleton, 2014), with a multitude of tutorials easily accessible online (see for example "Mend a Hole", 2010; Comfort, 2014). UK research found that the majority of consumers disposed of damaged items (You Gov, 2012; WRAP, 2012b), so there must be other contributing factors beyond these initial barriers.

Traditionally, imperfect textile surfaces are strongly associated with poverty and wearing visibly worn or damaged clothes play a significant role in the characterisation of economic hardship (Kelley, 2009). The physical act of repairing clothes, particularly darning, also suffers from traditionally negative associations of 'women's work', times of hardship and wartime necessity, childhood chores, and isolated domestic drudgery (see for example Williams, 2004; image of 'The Influence of Women' in Long, 2011; Quinton,

2008; and paintings by Snyder, 1885; Renoir, 1908; and de Lelie, 1817 pictured in figure 1). These social associations still exist; academic research into clothing use behaviours found participants "avoid clothes with visible repairs in order to protect themselves and their families from stigma" (Fisher *et al.*, 2008: 31), for example.



Figure 1. Woman Darning Socks (de Lelie, 1817).

Contemporary consumer culture affords us the convenience of being able to avoid this stigma by no longer *needing* to repair clothes. The UK 'fast fashion' sector, characterised by cheap prices and low quality garments, has increased dramatically in the past decade (Defra, 2008), providing a vast array of readily available replacements and resulting in clothing being considered 'throwaway' (Birtwistle & Moore, 2007). Jonathan Chapman (2005, p.90-92) argues that this contemporary consumer culture has led to a sense of detachment from generic products that offer little emotional connection, which, in addition to low cost, could explain why they aren't considered worthy of repair.

This endless stream of cheap consumer products also has a disabling effect; as we no longer need the skills to make or reuse clothes we have become incapable of doing so (Farrer & Fraser, 2011). Kate Fletcher (2008, p.187) believes the nature of mass-produced

garments contributes to this psychologically, because “the products themselves are presented to us as complete or ‘closed’, with an almost untouchable or sacrosanct status. This dissuades us from personalising them in order to make them our own”. So in addition to losing repair skills, psychological barriers may also prevent us from attempting to interact with them.

With consideration of these practical, social, socioeconomic, systemic and psychological barriers, the next section will introduce theory and practice-based solutions that have potential to overcome them, with a focus on those that could, and in some cases are, being led by fashion and textile practitioners.

Overcoming repair barriers

Mending artist and researcher Jonnet Middleton raises the significant point that traditional socioeconomic perceptions of repair are entirely outdated, “because, frankly, in this age of overconsumption, no one needs to mend anything anymore” (Middleton, 2014). Describing mending enthusiasts who disregard the stigmas and wear visibly repaired clothes with pride, Middleton suggests the potential to reframe repairs as a badge of honour: effectively subverting the social meaning of visibly repaired clothing. Designing to create new meaning is a strategy proposed by design theorist Jonathan Chapman (2005, p.109) in order to foster better emotional connections with consumer products, providing ‘conversation pieces’ that can facilitate servicing and repair (2005, p.18). The ‘Visible Mending Programme’ led by craft practitioner Tom of Holland takes this approach; his skilled visible repairs, masterclass workshops and commission services aim to “reinforce the relationship between wearer and garment... and hopefully persuade them that shop-bought clothes deserve care and attention too” (van Deijnen, *n.d.*).

The stereotypical image of isolated domestic drudgery is also being challenged by the distinctly cooler associations developing through the emergence of subversive practitioner led activities such as this; the co-curated ‘Department of Repair’ (Harvey et al., 2015), Middleton’s ‘Sock Exchange’ darning event (Middleton, 2010), and fashion design researcher Otto Von Busch’s (2011) Community Repair project are other examples that reposition of repair as an enjoyable social

affair at practitioner facilitated events. Adopting the spirit of what is termed the Sharing Economy, this offers a “collaborative form of fixing [that] encourages the replacement of shopping (as a stimulus seeking activity), with more creative and social experiences, centered on the shared act of making and mending” (Chapman, 2013). They demonstrate repair and collaboration as strategic tools that designers can use to both mend damaged clothes and weave new threads of life into the social fabric, benefitting the collective wellbeing of communities by bringing people together through shared experiences (Von Busch, 2011).

Amy Twigger Holroyd (2013) is a design researcher who has been exploring the craft-wellbeing relationship in the context of sustainable fashion: how craft can contribute to both personal wellbeing while also challenging the ‘hegemony of contemporary mass-produced fashion culture’. Her research is centred on re-knitting rather than repair as such, but addresses the same psychological barrier created by the ‘closed’ nature of clothes, as introduced earlier (Fletcher, 2008, p.187), in order to extend the life of clothes. To do this she takes on a ‘meta-design’ role that moves away from traditional model of ‘designer as author / maker’ to a supportive role of ‘designer as collaborator’, by opening up her design skills and knowledge to help skilled amateur knitters personalise items of ready-made clothing. In doing so, greater emotional connections with mass-produced clothes are fostered, engendering the sense of individuality, self-definition and affirmation of identity within users (Chapman, 2005, p.109). Further to this, the craft skills also provide personal rewards: a sense of achievement and space for meditative reflection.

The next section will outline our practice-based repair activities that adopt elements of these solutions: facilitated visible, participatory, and social repair, in particular Twigger Holroyd’s concept of ‘meta-designer’, that opens up design skills and knowledge to support others.

Activities

The authors facilitated a series of Love Your Clothes (LYC) public engagement events in 2014 at the Highland Wool Festival and in John Lewis stores across Scotland, with the aim of exploring practice based design approaches to support greater public engagement and

participation in garment repair, in order to extend the active life of clothes. In addition to the review of barriers and suggested solutions outlined previously, the preparation for these events included informal conversations with skilled local amateur craft practitioners to learn about their experiences of and perspectives on craft repair skills; these revealed insights that will be discussed in the findings section.

Personal craft praxis was also employed in the preparation to inform the practical requirements of acting as a 'meta-designer', following Twigger Holroyd's (2013) methodology of independent design research to develop techniques through iterative cycles of planning, sampling and reflection to develop ideas, write instructions and designing resources (see Twigger Holroyd, 2013, for an in depth description). For our events, these were darning and simple embroidery stitch techniques that could be used for creating personal, visible repairs. These had to be adaptable, to suit different personal styles, but unlike Twigger Holroyd, who undertook purposive sampling with skilled amateur knitters, the audience at the open public events had unknown skill levels, so it was necessary to develop techniques that would be accessible to complete beginners.

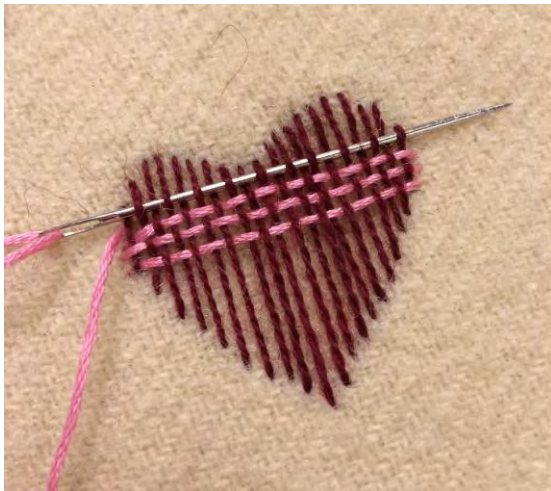


Figure 2. Darned heart motif developed for the LYC events (image credit: Angharad McLaren).

Further to these practical considerations, the techniques were selected for their potential to be decorative, inspiring and expressive. A darned heart-shaped motif (figure 2) was developed, for example, to tie in with the LYC message by inviting people to 'wear their heart

on their sleeve', showing their love for their clothes. Or, in other words, a metaphor that offered an easily cognisable meaning to provide the foundation for emotional connection (Chapman, 2005, p.109). Expressive embroidery stitches were also employed to enable personalisation (figure 3).



Figure 3. Expressive, decorative embroidery stitches (image credit: Shirley McLauchlan).

To reframe repair as social design-led sharing activities, the events took a participatory approach, offering demonstrations and advice on darning and embroidery techniques, while also encouraging conversations around mending and the value of our clothes. Participants were asked to share their own hints and tips to help others extend the life of clothes; these were displayed prominently on tags at the events and shared to a wider audience using online social media platforms (figures 4 and 5). This attempted to increase the visibility of mending practices, as well as encouraging active participation in the Sharing Economy ethos through altruistic means.

The qualitative data generated by these activities is clearly limited, personal, and specific. As such it is not generalisable to the wider population, but has offered further insights into the barriers to repair and solutions to overcome them. It also provided a platform to explore a design-led role, which is discussed in the following section.



Figure 4. Shared repair hints and tips at Highland Wool Festival (image credit: Angharad McLaren).

Retweeted by Shirley McLauchlan
Enduring Fashion @enduringfash · May 31
#loveyourclothes @DesignShirley Shirley McLauchlan amazing upcycled denim jackets with beautiful darning.

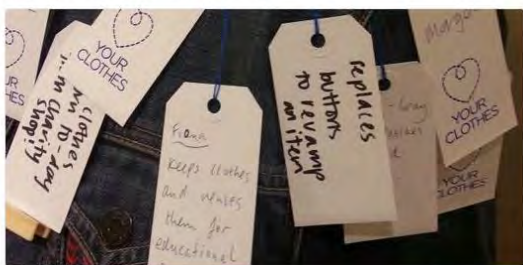


Figure 5. Tweet of shared repair hints and tips at John Lewis Glasgow event with Shirley McLauchlan.

Findings and discussion

Conversations around clothes repair during the LYC events, revealed that cost, and lack of time and skills were indeed commonly cited barriers to repair. However, surprises were found in conversations with local amateur craft groups who are extremely skilled at embroidery techniques and will typically spend a great deal of time and resources on embroidery as a pastime, but do not tend to apply this skill to repairing and mending their clothes. Damaged clothes were sometimes ‘upcycled’ into new products – bags, patchworks or artworks – using their creative capacities, or used as rags around the house and garden. Many ended up being thrown out, not considered useful or good enough to donate or pass on.

Volunteer textile repairers at a stately home who evidently have skills, time and patience to undertake advanced embroidery repair

techniques were also disinclined to mend or personalise their own clothes. All participated in many other pro-environmental practices, such as composting, sharing car journeys and recycling. Mostly older generation women, they had all learnt the specific skills required for mending, such as darning, at a young age, and associated it with isolated domestic chores and times of economic hardship. This is consistent with the traditional perceptions of repair and poverty, and Twigger Holroyd’s (2013) findings that skilled amateur knitters, despite having the skills to make complex garments from scratch, did not personalise or repair ready-made items due to their seemingly ‘closed’ nature.

The engagement with other pro-environmental practices also suggests a lack of knowledge about the environmental impact of the fashion industry and clothing waste, and, interestingly, most people at the events were motivated more by the thought of saving loved garments than environmental reasons. The events also revealed that garments that were repaired were often ‘favourites’, which confirms that an emotional connection can overcome the psychological barriers proposed by Fletcher (2008), or that the damage somehow ‘opens’ a garment, offering a way past its initial ‘closed’ or ‘sacrosanct’ nature.

Traditional repair techniques such as darning were perceived as not only time consuming and laborious processes, but also scruffy and messy looking in practice, not appropriate for the workplace for example. As a result, any damage in a visible place renders garments un-mendable. The decorative but contemporary style aesthetic offered in our examples was enthusiastically received as an alternative, challenging preconceived notions of traditional repairs. Some chose to follow our instructions step-by-step, while others were confident adapting the designs to suit their own style; either way connects with the clothes at a material level, adding a personal touch that could help to engender the sense of individuality, self-definition and affirmation of identity within users (Chapman, 2005, p.109).

The active participation confirmed the potential of Twigger Holroyd’s ‘meta-design’ role in supporting participants to personalise garments through repair, and in particular highlighted the importance of personal design-led craft-praxis in the preparation stages of this to ensure the techniques developed were accessible,

adaptable, inspiring and expressive. Not all participants found the techniques easy to master, however, especially those with little or no craft skill experience, and this led to them feeling frustrated or disappointed with the results. Further refinement of the techniques and supporting instructive materials could be trailed to develop them for wider accessibility.

Whatever their personal experience of the techniques, in opening up conversations around repair practices, we found many were keen to share their own hints and tips to help and motivate others. This social, altruistic enthusiasm supports the ethos of the Sharing Economy (Chapman, 2013), and suggests that more could be done to facilitate skills sharing between those with more advanced skills and experience, such as the skilled textile repairers whose already volunteer their skills for altruistic purposes. This could be built upon by incorporating further altruistic measures; Celia Pym has taught darning techniques on old hospital sheets that were returned afterwards for re-use (Alter, 2008), for example, hence overcoming practical barriers with skills training while also offering civic engagement and wellbeing benefits of 'doing good' in society (Robotham et al., 2012).

Lastly, a lack of knowledge about the environmental impact of the fashion industry and clothing waste was revealed in our research. The LYC events revealed the potential for participatory craft praxis as a tool to motivate greater public engagement with sustainability. They offered a space to discuss and reflect upon these topics in a social, informal and creative setting, provided 'conversation pieces' to facilitate servicing and repair (Chapman, 2005, p.18), and also help make repairs, the act of repairs, and the stories behind them, more visible.

Conclusions

Repairing damaged and worn clothes is one way to reduce the impact of the fashion and textiles industry, by reducing the amount of waste and extending the life of clothes. Financial costs, and lack of time and skills are the most commonly cited barriers to repair but this paper explored further social, socioeconomic, systemic, and psychological barriers that explain why damaged clothing is not repaired.

Exploring the complexities behind these initial barriers and solutions to overcome them revealed valuable insights to inform our own sustainably motivated practice. Repair practitioners are taking different approaches to encourage and motivate repairs, with a common thread of participatory activities that reframe mending as a social, enjoyable affair that embody an altruistic Sharing Economy ethos. Increasing the visibility of repairs, while also reframing their meaning, challenges the traditional, outdated views of mended clothes as signifiers of poor socioeconomic status. Designing visible repair patterns that are contemporary, stylish, accessible and can be personalised offers potential for wider uptake of repair practices, making them personal, meaningful and socially suitable to be worn in the workplace for example.

Amy Twigger Holroyd's (2013) 'meta-designer' methodology redefines the designer's role as a supportive collaborator in personalising garments in these social, participatory settings, rather than being solely the author / maker of original works. This approach was successfully adapted to support personalising repairs in the LYC public engagement events. Further work could develop these to better support complete beginners, and be adapted to include further repair techniques such as Swiss darning, patchwork or applique.

Future research aims to continue investigating attitudes towards decorative repairs, developing new work that incorporates mending skills as decorative elements and exploring their use as inspirational and educational tools for different audiences through participatory events.

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References

- Alter, B. (2008). Darning Clothes as an Art Retrieved from: <http://www.treehugger.com/style/darning-clothes-as-an-art-form.html> (July, 2003)
- Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E. and Lang, C. (2014). Sustainable product-service systems for clothing: exploring consumer perceptions of consumption alternatives in Finland. *Journal of Cleaner Production*. 1-10. <http://dx.doi.org/10.1016/j.jclepro.2014.01.046>

- Birtwistle, G. & Moore, C. M. (2007). Fashion Clothing: Where does it all end up? *International Journal of Retail & Distribution Management*, 35 (3), 210-216.
- Chapman, J. (2013). Repair. Textile Toolbox online. Retrieved from: <http://www.textiletoolbox.com/research-writing/repair/> (22 July)
- Chapman, J. (2005). *Emotionally Durable Design*. Earthscan: London.
- Comfort, L. (2014, 19th May). How to sew on a button. *The Guardian*. Retrieved from: <http://www.theguardian.com/lifeandstyle/2014/may/19/how-to-sew-on-a-button>
- Cooper, T., Claxton, S., Hill, H., Holbrook, K., Hughes, M., Knox, A., & Oxborrow, L. (2014). *Clothing Longevity Protocol*. A report for WRAP: London. Retrieved from: <http://www.wrap.org.uk/content/clothing-longevity-protocol-1>
- Defra (2008). *Sustainable clothing roadmap briefing note December 2007: sustainability impacts of clothing and current interventions*. Defra: London.
- De Lelie, A. (1817). *Woman Darning Socks* [painting]. Retrieved from: <http://siftingthepast.com/2012/12/13/woman-darning-socks-adrian-de-lelie-1817/>
- Farrer, J. & Fraser, K. (2011). Sustainable 'v' Unsustainable: Articulating division in the fashion textiles industry. *Anti-po-des Design Research Journal*. 1(4), 1-18
- Fisher, T., Cooper, T., Woodward, S., Hiller, A. and Goworek, H. (2008). *Public Understanding of Sustainable Clothing: A report to the Department for Environment, Food and Rural Affairs*. DEFRA: London. Retrieved from: <http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=1&ProjectID=15626>
- Fletcher, K. (2012). *Durability, Fashion, Sustainability: The Processes and Practices of Use*. *Fashion Practice Journal*. 4(2), 221-238. DOI: 10.2752/175693812X13403765252389
- Fletcher, K. (2008). *Sustainable Fashion and Textiles: Design Journeys*. Routledge: London
- Graham, S. & Thrift, N. (2007) *Out of Order: Understanding Repair and Maintenance*. *Theory, Culture & Society*. 24(3), 1–25. DOI: 10.1177/0263276407075954
- Goworek, H., Fisher, T., Cooper, T., Woodward, S. & Hiller, A. (2012). The sustainable clothing market: an evaluation of potential strategies for UK retailers. *International Journal of Retail & Distribution Management*. 40(12), 935-955. <http://dx.doi.org/10.1108/09590551211274937>
- Harvey, B., Tsutsumi, M., Hurley, M. and Richmond, K. (2015). *The Department of Repair*. Retrieved from <https://thedeptmentofrepair.wordpress.com/>
- Kelley, V. (2009). The Interpretation of Surface: Boundaries, Systems and Their Transgression in Clothing and Domestic Textiles, c.1880–1939. *Textile*. 7(2), 216–235
- Laitala, K. & Boks, C. (2012). Sustainable Clothing Design: Use matters. *Journal of Design Research*. 10(1/2), 21-139.
- Long, L. (2011). Figure 5: The Influence of Women [image]. *Harpers Weekly*. September 6, 1862. Pictured in *Rehabilitating Bodies: Health, History, and the American Civil War*. University of Pennsylvania Press: Philadelphia. p.182-183.
- Make it Last (2015). Celia Pym gives you the world's best mending tips. *Make It Last*. Retrieved from: <http://makeitlast.se/2015/03/05/21493/> (5th March)
- The Guardian. (2010). Mend a Hole Retrieved from <http://www.theguardian.com/lifeandstyle/2010/jan/18/mend-a-hole-sewing> (18th January).
- Middleton, J. (2014). *Mending*. In K. Fletcher and M. Tham (Eds.) *Routledge Handbook of Sustainability and Fashion*. Routledge: London
- Middleton, J. (2010). *Sock Exchange, Cork 2010*. Retrieved from <http://www.futuremenders.com/>
- Pym, C. and Wingate, R. (2014). *Understanding the Anatomy of Value*. Kings College London online: <http://blogs.kcl.ac.uk/culture/tag/celia-pym/>
- Quinton, R. (2008). *Patterns of Childhood: Samplers from Glasgow Museums*. (2nd ed.). The Herbert Press: London.
- Renoir, P. A. (1908). *Gabrielle Darning* [painting]. Retrieved from: <http://fineartamerica.com/featured/gabrielle-darning-pierre-auguste-renoir.html>
- Robotham, D., Goldie, I., Chakkalackal, L., White, C., Morgan, K. and Cyhlarova, E. (2012). *Doing Good? Altruism and wellbeing in an age of austerity*. Mental Health Foundation: London. Retrieved from: <http://www.mentalhealth.org.uk/content/assets/PDF/publications/Doing-good-report1.pdf?view=Standard>
- Snyder, H. (1885). *Darning by the Hearth* [painting]. Retrieved from: http://www.artnet.com/artists/william-henry-snyder/darning-by-the-hearth-1lvj8qvAMoi3HhoK_IVOHg2
- Twigger Holroyd, A. (2013). Rethinking the designers role: the challenge of unfinished knitwear design. In H. Britt, S. Wade and K. Walton (Eds.). *Futurescan 2: Collective Voices*. (pp. 162-171). Sheffield Hallam Uni. ISBN: 978 1 907382 64 2
- Van Deijnen, T. (n.d.). *About The Visible Mending Programme*. Retrieved from: <http://tomofholland.com/>
- Von Busch, O. (2011). *Community Repair: Challenging a Community of Non-Commitment*. In D. Williams and O. Von Busch (Eds.), *Community Repair: strategic social skill mobilization for*

sustainable fashion. (pp. 7-9). University of the Arts London, Centre for Sustainable Fashion and the Knowledge Foundation. Retrieved from http://www.kulturservn.se/wronsov/selfpassage/CoRep/CommunityRepair_cat-w.pdf

Williamson, L. (2004). Darning: A Visible Thread. Paper presented at the Textile Society of America Symposium. Retrieved from: <http://digitalcommons.unl.edu/tsaconf/457>

WRAP (2012a). Valuing Our Clothes: The true cost of how we design, use and dispose of our clothing in the UK. A report for WRAP: London. Retrieved from: <http://www.wrap.org.uk/sites/files/wrap/VoC%20FINAL%20online%202012%2007%2011.pdf>

WRAP (2012b). Valuing Our Clothes: the evidence base. A technical report for WRAP: London. Retrieved from: <http://www.wrap.org.uk/sites/files/wrap/10.7.12%20VOC-%20FINAL.pdf>

You Gov (2012). Bored with Your Clothes? A report by You Gov for M&S. Retrieved from: <https://yougov.co.uk/news/2012/06/27/bored-your-clothes/>