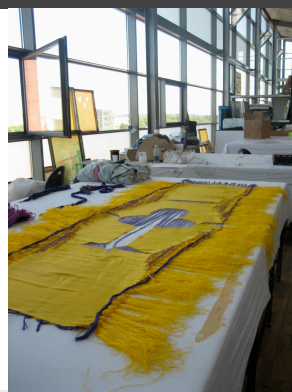


Zero waste fashion design

Approaches and strategies to reduce textile waste

Alison Gwilt

a.gwilt@shu.ac.uk



The problem of textile waste

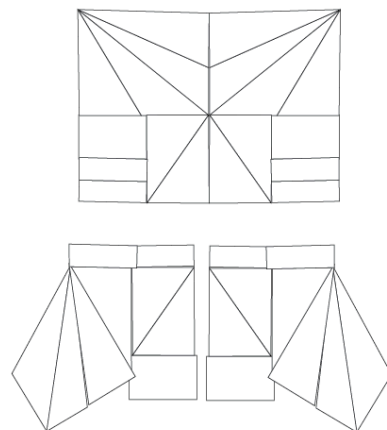
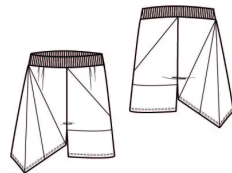
- Of 2.35 million tonnes of textile waste, 74% directed to landfill (Allwood et al, 2006)
- Waste occurs during production and consumer use
- But waste can be reduced or avoided through design-led approaches



Reducing textile waste – how?

- Reduce waste during production
- Encourage wearers to keep garments for longer
- Designers can work with wearers to maximize the life of materials and garments through recycling / closed loop production systems

Zero waste fashion design?



Images: David Andersen
Copenhagen, SS2013 Zero Waste
range

Historical 'zero waste fashion'



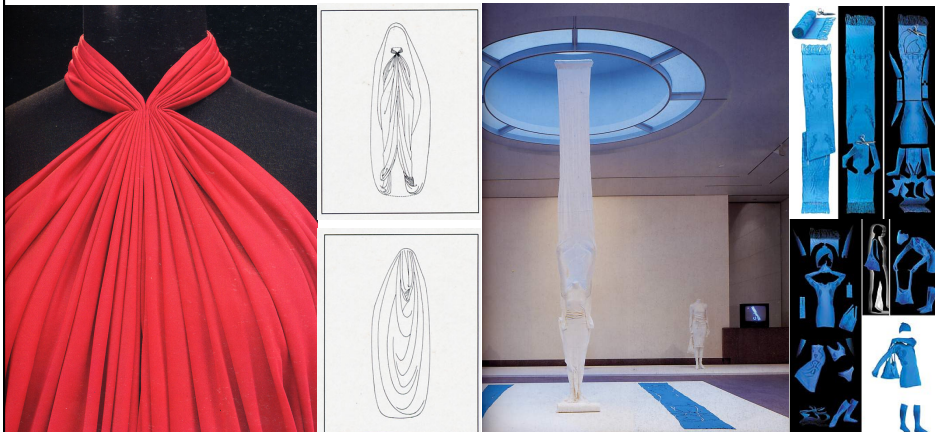
Images: draped rectangles of uncut / unsewn cloth used in the Greek *chiton*, and the Egyptian *senti*, worn by Tutankhamen; cloth woven to size, then pieces are cut and sewn together for the Japanese *kimono*

Modern 'zero waste fashion'



Images: dress skirt constructed from 20 triangular pieces, from Vionnet, 1918 / print and drape work from Zandra Rhodes, early 1970s

Japanese 'zero waste fashion'

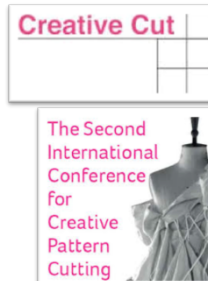
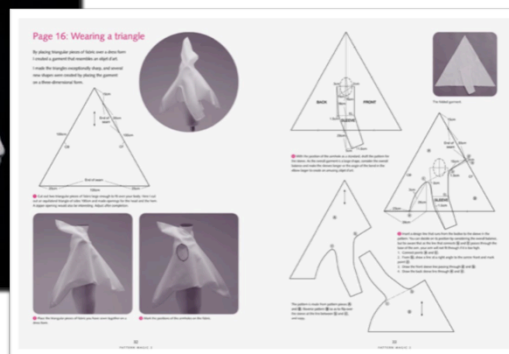


Images: Yuki, late 1970s / Issey Miyake A-POC system, first shown in 1997.

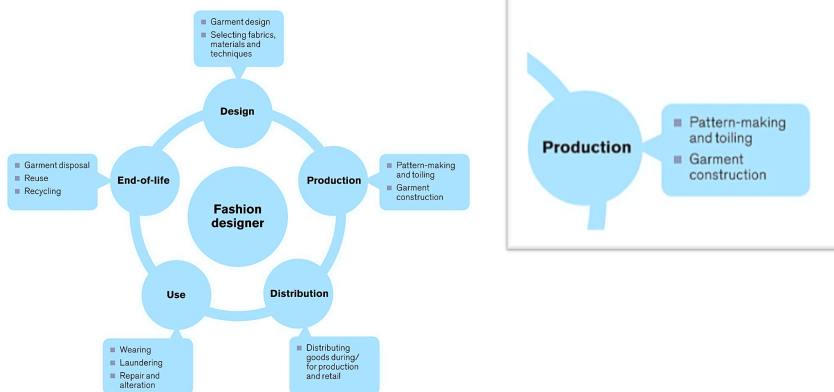
Creative cutting and 'zero waste fashion'



Images: "...harnessing the joy of making and sculpting clothes"...the Pattern Magic series of creative pattern making books / *Creative cut* pattern cutting conference.



Is zero waste fashion a pattern-making exercise?



The visual language of sustainable fashion



Above: Designers such as Miuccia Prada, begin their design work with fabrics. Right: Livia Firth (with husband, Colin Firth) wearing Gary Harvey's upcycled dress at the 2011 Oscars. The dress is constructed using materials gathered from 11 vintage wedding dresses.

Fashion's influential aesthetic

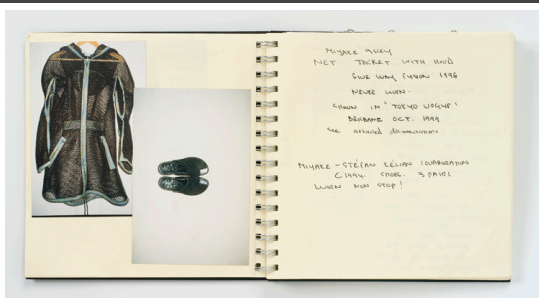
"When you go into a shop (...) you first look at the designs and then you look at the price. You don't look at where it's made; it's not the first thing that comes into your mind. So when you see it's a plain white (organic) T-shirt, you think, oh, a tenner (...) I wouldn't pay a tenner for that."

Participant, "Public Understanding of Sustainable Clothing" DEFRA (2008)

Image: John Smedley / Better Thinking Ltd, *Luxury Redefined* t-shirt made using organic, undyed, unbleached Fairtrade Peruvian cotton.



Fashion's aesthetic

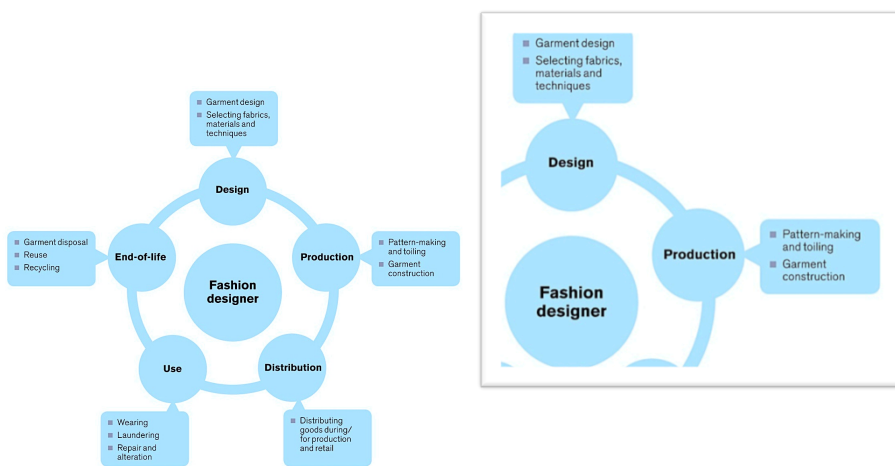


"The aesthetic, symbolic and social significance of clothing is at least as important as function..." Gibson & Stanes, 2011

Dr Gene Sherman (E.D. at Sherman Contemporary Art Foundation in Sydney, Australia) has been a collector of Japanese fashion for over two decades. A carefully considered acquisition and 'retirement' process means that at any given time she has approximately 25 outfits in her wardrobe. Working to 'buy less, buy better' Sherman purchases high-quality designer ready-to-wear pieces that reflect her aesthetic, intellectual and emotional needs, much in the same way that she buys artworks.



Design + Pattern making together



Designing out waste – how?

- Design to reduce waste during production
- Design to encourage wearers to keep garments for longer
- Designers can work with wearers to maximize the life of materials and garments through recycling / closed loop production systems

Reducing waste through material efficiency



Images: Danish designer, Line Sander Johansen (Kolding School of Design) weaves shaped pieces directly on the loom // Issey Miyake 132 5 collection of geometric garments cut from a single piece of cloth



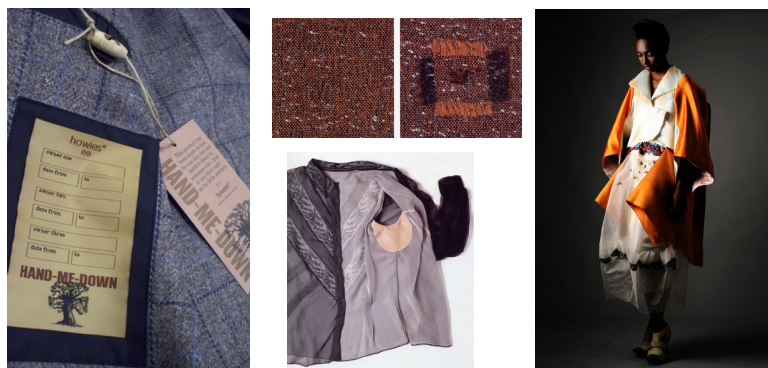
Refinity and Barbara Soepboer

Preparing garments for ageing

Nozomi Ishiguro's double-layered reclaimed cotton and denim jeans, between which are layers of dust, scraps, plastic bags, and snack packets. As the denim breaks down, the materials are revealed.



Reducing waste through durability



Images: L-R: Howies developed the 'Hand-Me-Down' collection to last for 10 years / Chanel blouse circa 1980s in Shaeffer, C (2001), *Couture Sewing Techniques*, (US: Taunton Press) / Palmer, A (2001), *Couture and commerce: The Transatlantic Fashion Trade in the 1950s*, (Canada: UBC press) / Central St Martins graduate Naomi Bailey Cooper embedded growing crystals in garments.

Reducing waste through improved maintenance

- Repairing clothes has dramatically decreased in the home
- Some of the reasons: shortage of skill / attraction of new and cheap clothes / the price of repairs in comparison to cost of new clothes



Main image: Sara McBeen's travel repair accessories

Provide a product + service



Make, do & mend: A clothing repair study
<http://www.youtube.com/watch?v=isMQHnvosTo&feature=youtu.be>

John Galliano 1995. Source: McDowell, C (1998), Galliano, (New York: Rizzoli publishing) / grey wool, blue stain (2008) 'celebrates' an ink stain with embellishment / 'Make, do & mend' clothing repair study by Sheffield Hallam University.

Reducing waste through reduced consumption

- Promote change
- Value wear and tear
- Develop textiles and garments that can deflect away from damage



Left: Bruno Kleist stained shirt; Right: Comme des Garçons, 1982

Reducing waste through empathy



Images: Singaporean designer, Lilia Yip / 'slot + fold' from University of Brighton Mdes graduate, Cherelle Abrams

Zero waste fashion design: approaches and strategies to reduce textile waste

You can read about the *Make, Do and Mend* study at:
<http://www.shu.ac.uk/research/c3ri/>

Gwilt.A (2014) '*A Practical Guide to Sustainable Fashion*' Fairchild Books
NEW in 2015: '*Fashion Design For Living*', Routledge

Alison Gwilt, Sheffield Hallam University
Email: a.gwilt@shu.ac.uk

