

## 16. Commoning situated knowledge: Co-teaching-and-learning the ‘design-led upcycling’ of waste clothing

Elaine Igoe <sup>1,\*</sup>, Susan Noble <sup>2</sup>, Lara Torres <sup>3</sup> and Jennifer Cunningham <sup>4</sup>

1 University of Portsmouth, Portsmouth, UK; elaine.igoe@port.ac.uk

2 University of Portsmouth, Portsmouth, UK; sue.noble@port.ac.uk

3 University of Portsmouth, Portsmouth, UK; lara.torres@port.ac.uk

4 University of Portsmouth, Portsmouth, UK; jennifer.cunningham@port.ac.uk \* Correspondence: elaine.igoe@port.ac.uk

### Keywords

Circular design; Design pedagogy; Fashion commons; Sustainable fashion and textiles; Theory of communication

This study examines the introduction of a ‘design-led upcycling’ group project into an established design and enterprise curriculum structure with second year students on BA (Hons) Fashion and Textile Design at the University of Portsmouth, UK. It reflects the common experience and situated knowledges of academic, technical staff and students contextualised within the changing imperatives of design education. Rogowska-Stangret (2018) outlines how Donna Haraway’s situated knowledges work like an apparatus of producing ‘... a more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as others’ practices of domination and the unequal parts of privilege and oppression that make up all positions’ (Haraway, 1988, p.579). With this as a pedagogic aim, academics and technicians re-evaluated their established teaching and support methods in relation to upcycling in design. Research methods and resources for this study include designed artefacts, learning/teaching materials and recorded conversations analysed to assess the points of communion, variance and discordance across the groups.

Approaching ‘design-led upcycling’ across a series of ‘enterprise’ modules, concerned with researching and designing a fashion product while developing an understanding of the commercial context of fashion and textile design; students began to understand design in an economic and market context identifying, demonstrating and justifying their reasons for making. Understanding potential customers’ needs, wants and expectations is crucial for students if they are to contribute to the circular economy. Considering that ‘Upcycling is a process in which used or waste products and materials are repaired, reused, repurposed, refurbished, upgraded and remanufactured in a creative way to add value to the compositional elements...’ (Singh et al. 2019), student groups were given a limited number of waste (worn or obsolete) military uniform stock varying in size, fabrication, fibre and colour, and asked to propose a range of upcycled outerwear. Working in a reflexive manner, where knowledge is shared and made together, both students and staff followed some of the transitions outlined by Bertola (2018); pertinent to this project are the engagement in active learning over passive teaching and working in a problem-centred, not knowledge-centred fashion. For example, in a group of five students each designing their own garment, two waste uniform items were shared among them. As a

result, some of the groups had to supplement with further materials. Susan Noble, the module coordinator, explains how she dealt with the uncertainty surrounding the amount of materials:

*...[O]nce we started teaching there weren’t enough, and so we had to broaden the scope of the materials the students were going to use. [...] So the way I coped with that was to quickly introduce*

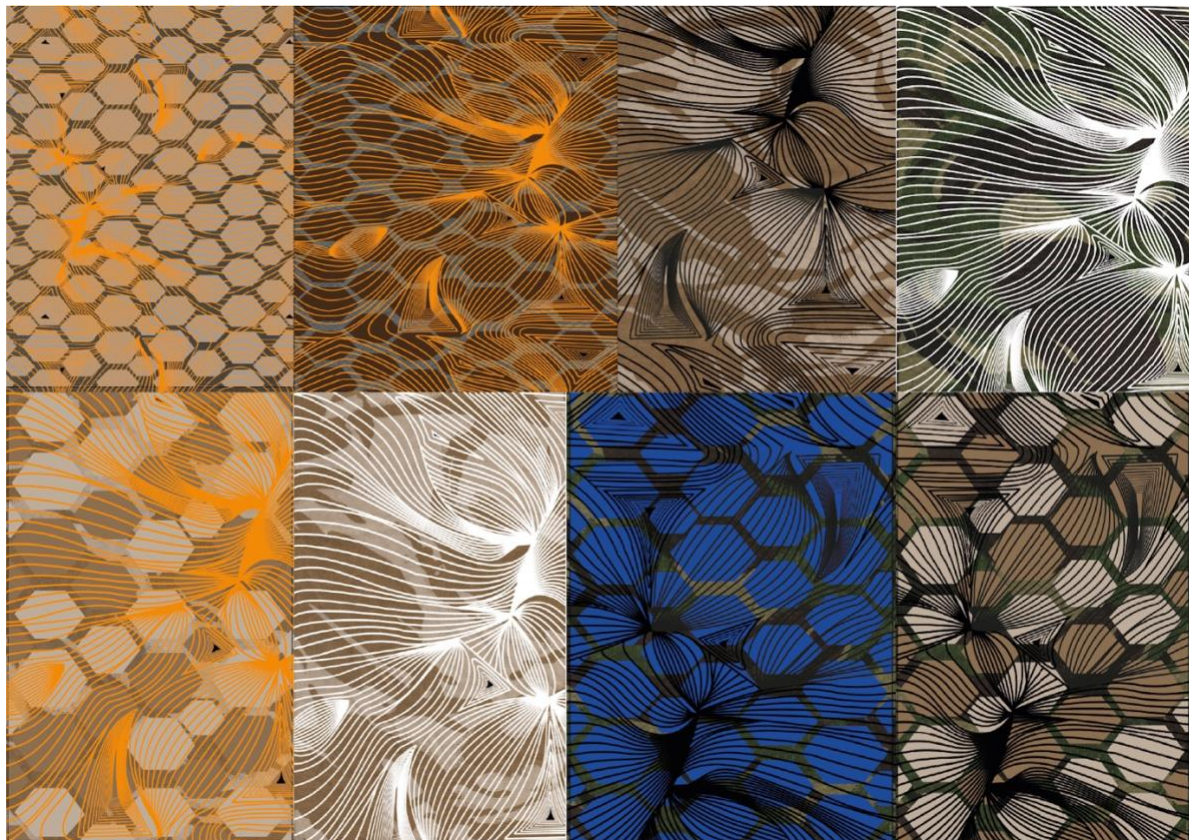
*some kind of rules or guidelines, which was that if they had to supplement the materials that were donated, they had to be supplemented with materials that had no use as they presently stood.*

After unpicking the garment, the students had to negotiate and divide the limited materials, making it necessary for them to reassess the designs in their initial business plans and ensuing discussions about sourcing further 'waste' to supplement it. Students also confronted their attitudes towards these materials; some having to overcome personal feelings of disgust and limitation.

The limited materials forced new ways of working at every stage of designing and making, particularly at testing, sampling and toiling stages. When planning printed textile designs, some students found that the best way to test print colourways was to use Adobe Illustrator working on scans of the textiles to be upcycled (Fig. 16.1).

**Fig. 16.1** Example of student work in progress using Adobe Illustrator to test textile prints against the reused textiles for the design-led upcycling of waste uniform at the University of Portsmouth (photo by Melissa de Beer)

Students mentioned that their design aesthetics were impacted by the donated materials, forcing redesigns and panelling to make the best use of fabric or to incorporate the utilitarian shapes. As participants' awareness of waste and upcycling methods improved, realisations emerged of how



wasteful toiling can be. In the next iteration of this project, we will consider the use of 3D (3-Dimensional) rendering or digital toiling for design-led upcycling.

Examples of our initial findings are outlined as follows:

- – Students and staff considered whether a reasonably sound garment should be upcycled or repurposed and worn as is, vocalising questions around the justification of energy

expenditure, time and resources. Key to decision-making as responsible designers was weighing up the energy taken to discard or dispose of waste clothing in comparison to the energy expended on design-led upcycling.

- – The waste uniform was assessed as compositional elements varying in weight, colour and behaviour; with considered ‘raw’ (materials that could be used as new materials after being unpicked) and ‘cooked’ (materials that have been heavily processed—cuffs, areas with pockets; see Fig. 16.2) for potential redeployment and as useful ‘hooks’ from which to develop new designs. Differences in the aesthetic and physical properties of the materials were reconciled or creatively juxtaposed by employing traditional and digital design techniques. Initial staff concerns about the limited materials offered were diminished by the creativity of the students.
- – The requirements of clothing in a military context include internal protocols (e.g. health and safety) which may mean that items are more readily discarded, whether worn or not. Through design-led upcycling methods, these items are shifted into a commercial and therefore more social and personal context with requirements focused on individual or group-based needs, desires and circumstances (Fig. 16.3).

**Fig. 16.2 Example of 3 stages of the development of student work in the design-led upcycling of waste uniform from the University of Portsmouth (photo by Melissa de Beer)**



The methodological research aim is ‘to common’ (Dewey, 1966) the situated knowledges of those sharing the experience of teaching and learning about upcycling waste clothing within an entrepreneurial design process. This developed into the concept of ‘design-led upcycling’ which emphasises the application of criticality and reflexivity in considering the impacts, implications and lifecycles of the designs as fashion and textile objects on designers or ‘designer-citizens’ (Wolff & Rhee, 2009) and ‘citizen consumers’ (Ricci et al., 2016). Our approach and initial findings form an exploration of the ‘fashion commons’ concept outlined by Twigger-Holroyd (2017) set in relation to

Dewey's theory of communication (1966) drawing on the etymological linkages between *common*, *community* and *communication*.

Fig. 16.3 Example of completed student work in design-led upcycling waste uniform at the University of Portsmouth (photo by David Clark)



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