



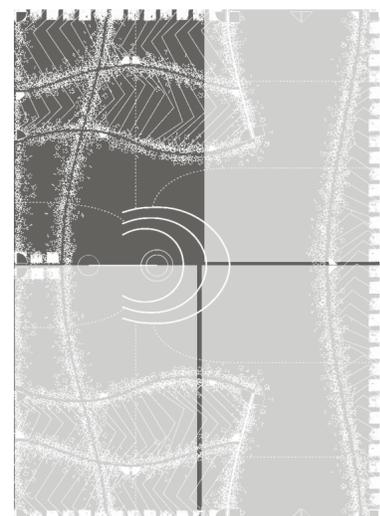
MAKE/USE 2/5  
A FIVE-EDITION  
SERIES FOR THE  
MAKE/USE AT  
OBJECTSPACE  
RESIDENCY  
11 JULY –  
8 AUGUST 2015



**Make/Use explores what might occur if we consider not only the aesthetic of the garments we wear, but also the way we use them and the waste we create when we make them.**

This ongoing research-through-design project questions conventions of the clothing industry in relation to knowledge-keeping, production practices and material use.

Through developing open-source, user-modifiable, zero waste designs, Make/Use aims to empower users of clothing, and challenges them to question the relationships they have with their present and future garments.



### The Pattern

Overleaf is a quarter of a full size cropped T shirt pattern that has 48 customisable variations embedded in the design. Collect the other parts during the Make/Use exhibition.

### WORKSHOP 1

#### Make/Use Flat to Form

**This workshop was about understanding the construction of a Make/Use garment from two dimensional flat pattern, to finished three dimensional form.**

Utilising the screen printed Make/Use T shirt 'flat', participants were guided through the creation of their own individualised T shirt from the 48 different possible outcomes the pattern allows. A group of participants with varied backgrounds and levels of sewing experience engaged in this novel process – with amazing results.

#### The System

The Make/Use system is unlike any traditional garment construction process, and as such, requires a different cognitive understanding of the relationship between flat fabric/pattern and garment form. This seemingly complex shift in thinking is in fact very simple. The whole system hinges on two basic concepts, the first being the creation of volume through the joining of two edges of a piece of fabric to form a tube – a space for the body to pass through. The basic Make/Use T shirt pattern can be understood as two conjoined tubes: a vertical one for the torso, and a horizontal one for the sleeves and shoulders, with a neck hole that allows the garment to pass over the head. The second concept deals with the manipulation of those tubular volumes, which is essentially achieved through the slicing of the tube at an angle, followed by a rotation of one end through 180 degrees to form a 'bent' tube.

In fabric, this bend may translate to the shaping of a sleeve, or the alteration of the drape around the lower body, creating more volume at the back while raising the front hem.

Participants in the Flat to Form workshop explored these concepts through playing with paper scale models of the T shirt pattern. This unimimidating method, which has similarities with the Japanese art of *origami*, is not only a fun and easy way of providing a first engagement with the system, but also reflects one of the techniques that designer Holly McQuillan uses to quickly test and iterate zero waste design ideas.

#### The Construction Process

Having gained confidence and understanding of these core concepts of the Make/Use system, workshop participants explored opportunities for customization of the T shirt pattern, using both the paper models and half-scale calico versions. In this workshop, the paper and fabric 'flats' were pre-printed with the print pattern developed by Greta Menzies in collaboration with the Make/Use team. This print pattern is both aesthetic and informative – it encodes navigational cues into the print that operate as way-showing devices for the user to aid in construction and decision-making. Rather than presenting a prescribed set of instructions, the way-showing system was conceived as an intuitive 'landscape' of mark-making that the user could negotiate in their own way, while retaining a sense of security and orientation provided by route markers at key points of connection or intersection.

The workshop beautifully illustrated the benefits of this design strategy. Not only were participants empowered to engage with the embedded opportunities for modification, some even quickly moved on to exploring their own 'hacks'; uncovering new possibilities. While some of these moves proved more successful than others, they nevertheless demonstrated the ability to test and adapt the pattern to suit the tastes and desires of individual maker/users.



### MAKER/USERS

**Make/Use is Zero Waste fashion viewed through the lens of use practice. The ultimate goal is not to produce a collection of garments, but to enable a community of maker/users.**

Make/Use places zero waste fashion in the context of use practice, where the user becomes an agent in both the design and ongoing use and modification of the garment. The research taps into a desire for the expression of creativity in users – people who may not have made or customised their own clothes before, but are drawn to the idea of doing so. In order to allow these people to become maker/users, they must be provided with tools. To enable this, the role of the design researcher becomes one of facilitation and 'scaffold' building. Providing both user modifiable zero waste fashion products and tools that facilitate the maker/user experience, the breadth of the Make/Use system acknowledges both the opportunities and limitations each user brings, while amplifying their skills, knowledge, needs and desires.

Emotional attachment to clothing and textiles can entice us to hold onto clothing for longer, which leads us to consume less. These attachment values include things such as memories, heirlooms or family ties. They might also be produced through notions of effort and achievement, where items are handmade, bespoke, self-made or self-designed. Similarly, qualities associated with future use, such as durability, multi-functionality, reparability, and the possibility of future modifications suggest a much more complex relationship with clothing than is often assumed and offers many opportunities for designers and users to take action.

Just as multiple markings on a single court surface enable different games to be

played in the same space at different times, Make/Use embeds future modifications in the design to enable the user to make changes to their garment throughout its life. This approach exploits a key aspect of zero waste fashion design – no part of the cloth is discarded – enabling future modifications to suit changing fashion or needs to be embedded in the garment's initial production. Production is zero waste, construction is simplified, and ultimately product life is extended through engaging the consumer, enabling ongoing modifications and the application of conspicuous mending. Make/Use caters to a variety of maker/users by offering the product in varying stages of completion and intervention. In addition, optional embellishments such as digital print and embroidery, and DIY hand finishing processes, function in multiple ways – as decoration, embedded instructions and pre-finishing – ensuring the user experience is as accessible and flexible as possible.

While many products employing mass customisation have been developed, none have integrated this with the benefits of zero waste fashion design, or through this sought to transform the fashion *consumer* into a fashion *user*. Make/Use proposes a vision of a fashion industry comprised of connected individuals and groups engaged with the making and ongoing use of garments. By enabling users to make their own simple but experimental garments, the research aims to challenge the understanding we have of making, wearing, modifying and designing clothing. When the process of garment-creation is facilitated rather than *owned* by the designer, an enriched designer/maker/user relationship is possible, bringing into question the role of design in the fashion context and transforming the traditionally passive consumer into active agent of change.



#### The Finishing Detail

In the second half of the workshop, participants moved on to a full size pre-printed T shirt 'flat'. Prior to cutting and sewing, the group was introduced to different possibilities for pre-finishing the edges to be cut, which allows for future modification and the re-setting of the fabric back to flat cloth. Beyond the more obvious methods of hand or machine sewing, and the less accessible high-tech option of digital embroidery, a much more low-fi, quick and engaging method was demonstrated – hand painting directly onto the fabric with acrylic house paint. In encasing the fibres, the paint provides a flexible and user-friendly edge finishing technique, and can also offer opportunities for personalised decorative mark-making and creation of visual interest through colour selection.

Once pre-finished, the fabric flat is cut and assembled according to the design decisions made by the maker/user. Again a variety of seam joining options is available, including machine and hand stitching. The Make/Use display collection also includes a coat that uses needle-felting as a joining technique.

A key feature of the Make/Use garments is their ability to be re-set and re-made. In some instances a special hand-stitching technique, called an insertion stitch, is used to facilitate this re-joining. The insertion stitch is relatively simple to implement and is both functional and effective to look at, drawing the eye to this detail. It forms a kind of conspicuous mending, borrowing from the Japanese concepts of *kintsugi* and *kintsukuroi*: the art of the beautiful repair.

*Make/Use would like to thank the participants in this first workshop. You are pioneers in what we hope will become a growing community of maker/users. We trust you enjoy your garments as much as we enjoyed helping you to create them!*



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