



MAKE/USE 3/5
A FIVE-EDITION
SERIES FOR THE
MAKE/USE AT
OBJECTSPACE
RESIDENCY
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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.

MAKE/USE SHARED

Make/Use makes Zero Waste User Modifiable Fashion accessible to Maker/Users through open source distribution and a range of low and high tech options for engagement.

Make/Use provides multiple levels of access and modes of distribution through a variety of technologies – from paper patterns and templates to screen or digitally printable textile designs. The design of Make/Use garments is not gate-kept by the designer, but is offered as a set of open-source resources that any home-sewer, teacher, hacker or designer can use as they choose. By facilitating a different kind of user engagement, the Make/Use project hopes to demonstrate possibilities for transforming the fashion system.

The collection showcased at Objectspace represents a tiny fraction of what might be possible. The Make/Use system and tools have been made available to the public, both in person through workshops and exhibition, and soon, via the Make/Use website. Continuing research and development by the Make/Use team aims to engage with its emerging community of Maker/Users, rather than being locked away in an academic research setting.

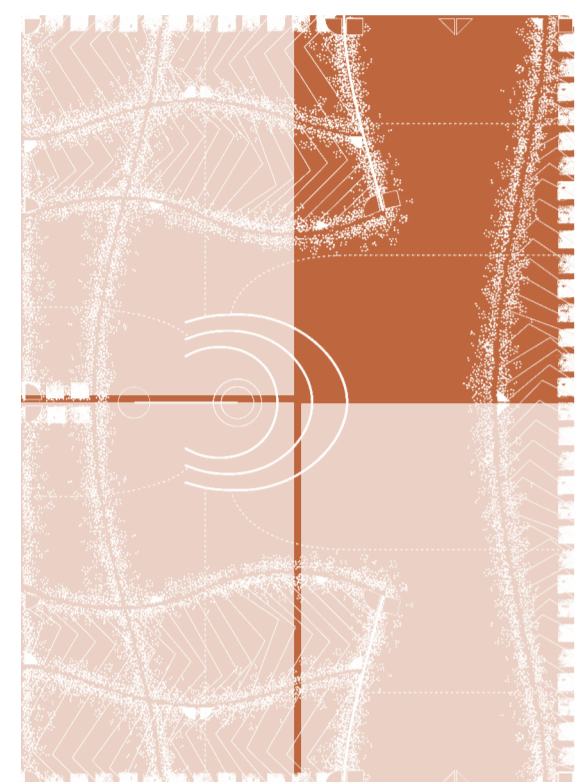
The bigger picture

The Make/Use garments are part of a larger system that is designed to encourage the ongoing and iterative use of the clothes we wear. Existing within a cradle-to-cradle system, Make/Use aims to disrupt the dominant flow of fashion consumption from producer to consumer to waste. Potential garment patterns are offered by the designer, but are entirely open for modification by the Maker/User. There

are multiple avenues of engagement to suit different levels of ability and desired commitment of time, money and materials. Each open source garment design is available in a variety of forms: as a basic pattern without textile print information; as a customisable print file; or as set of templates that can be used to apply a Make/Use pattern to any piece of cloth. It is also envisaged that the garments will be able to be purchased as a pre-printed and/or pre-finished fabric flat, or a fully finished garment, as a less time or skill intensive introduction to making or modifying.

The wider community

Make/Use aims to build a global community of engaged Maker/Users through this open-source online platform, and to facilitate connections within local communities. As well as online support mechanisms, the hands-on nature of the process encourages different forms of face to face knowledge sharing. The user may choose to undertake the process on their own, or to engage a local expert at any stage. To create the garment 'flats', the user may apply the patterns by hand to the fabric using downloadable templates, or they may take them to local facilities to be printed. Similarly, the garments could be taken to an experienced tailor for finishing, construction or alteration. This model encourages the re-localization of manufacturing and fosters engagement with local businesses and communities. This wider networked community traverses conventional boundaries between industry professionals and individual Maker/Users. Make/Use thus challenges the dominant monological discourse on fashion as consumption, by offering an alternative model for engagement with fashion design and production.



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 2

Make/Use your style

This workshop explored the application of the Make/Use system to any piece of cloth.

It covered the basics from Workshop 1, however this time participants brought along fabric of their choice. Maker/users were guided through the laying-out of their own custom 'flat' using the Make/Use Grid and Templates, from which they then constructed a finished garment. Participants chose from a selection of six Make/Use designs and experimented with modifications to suit each individual's body, taste, sewing experience, and sense of adventure.

The Make/Use Grid and Template System

In its simplest form, Make/Use is a set of zero waste garment patterns that are drawn, screen-printed or digitally printed onto fabric, and contain built-in opportunities for user modification – the maker/user has the ability to make, use, re-set, re-make, and re-use. Taking this a step further, Make/Use also provides options for customising the patterns themselves. A key limitation of most zero waste patterns lies in the difficulty in easily modifying the pattern for different fabric widths – something that would usually require a re-design of the pattern, which is beyond the skills of many everyday makers and users. A similar problem occurs with the need to alter patterns to change the fit or to suit different body types.

By way of a solution to these issues, the Make/Use Grid and Templates allow the system to adapt to different parametric variables – the width or length of the fabric, or the desired fit of a garment. Furthermore, by separating out the key components of the Make/Use garments (neckline, body rotation, sleeve cut, sleeve rotation etc.) into different templates, an additional level of interchangeability and adaptability is introduced. Not only can a maker/user configure these components on any width or length fabric, using the Make/Use Grid to aid placement, they might also explore different combinations, for example, combining the T shirt pattern with the neckline from the coat or wrap dress. Beginning with the grid set-out, maker/users can apply the templates directly to the fabric to mark out their own custom 'flat' pattern.

Each Make/Use garment made in this method is unique to both the fabric and the user. The length of a Make/Use tube dress can be altered to suit an individual's height; a favourite fabric can be used to make any of the garments in Make/Use; new iterations can be created by combining templates in ways imagined by the maker/user. The possibilities are endless, as was discovered by participants in the Make/Use Your Style workshop. Individuals from a wide variety of backgrounds and abilities brought with them different bodies, tastes, fabrics and aims. Each was able to gain an understanding of the system and customise a Make/Use design to suit their fabric, body and preferences.

The Grid

The workshop began with an exploration of the Crop T shirt flat on paper to understand the fundamentals of the Make/Use system, including key concepts such as volume creation (making a tube for the body to travel through) and volume redistribution, where the tube is 'bent' to transform its shape around the body. The participants were then guided through an explanation of the Make/Use grid that underlies the garment pattern. All of the Make/Use garments utilise this grid in some manner – in fact, it is the main reason behind the essential simplicity of the system. The grid system establishes key markers on the fabric relative to fabric, body and desired garment design that can then be used to place the Make/Use Templates. Rather than being based on set measurements, the grid instead uses interrelated parametric variables that relate to the way in which the width or length of the fabric is divided into sections. Fractions of the width of fabric, and units based on the maker/user's own body are used to determine the grid set-out, enabling them to create a garment tailored to the specificities of both their fabric and their body.

The Templates



Once the maker/users had set out their grid on their fabric, they were ready to start placing the templates. These templates are essentially a Make/Use garment pattern broken down into separate components. The T shirt pattern, for example, can be made using two essential templates – neckline (choice of round, wide or collar) and sleeve/body cut – and the following optional templates: body rotation, sleeve swap, shoulder rotation and elbow rotation. Each template contains basic information that allows the user to orientate the position of that component within the overall pattern, and to locate the template with respect to key points on the Grid. Some templates offer options to select, for example, one of three different curves that would alter the steepness of a curved rotational cut, which would result in altered severity of bend/drape. The templates also offer flexibility in extending or contracting a curve to suit a different width or length, whilst maintaining the integrity of the desired shape.

Once again, the potential complexity of this system is simplified and made accessible

through the efforts of the Make/Use team to develop user-friendly tools that empower the users to engage confidently with the creative process. The workshop participants were able to employ these templates to achieve some incredibly diverse, personalised outcomes. In the future we imagine that the templates and grid will form the basis of a piece of software or a coded digital interface that enables a maker/user to select the templates they wish to use, input their measurements and those of their chosen fabric, and adjust these parameters to generate a personalised Make/Use pattern. This pattern could then be printed as paper templates or digitally printed straight onto the fabric to create the 'flat'.

Make/Use would like to thank the participants in this second workshop, and those that took part in the earlier test workshops in Wellington. Your enthusiastic engagement with our system has been invaluable in its continuing development. It gives us great joy to see the designs and templates employed successfully to produce such an array of unique garments!

