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Beyond the Bespoke: Agency and The Hands of X

Andrew Cook and Graham Pullin

Our practice is disability focused, yet embraces culture and fashion as a challenge to narrower definitions of 'function'. Frances Corner writes that “Faster than anything else, what we wear tells the story of who we are—or who we want to be. It is the most immediate form of self-expression.” We believe that wearers or users of disability objects should have agency, allowing the opportunity to take control of the stories that these objects tell about who they are.

We can also borrow a useful framework from fashion to help explore different approaches to design for one. Although the terms 'bespoke' and 'made-to-measure' are often used interchangeably, they are two fundamentally different models of service. A bespoke garment is entirely designed and made from scratch in consultation with the customer. Made-to-measure involves a standardised pattern and manufacturing process which is adapted in structured and constrained ways to the customer's measurements, and manufactured using their specification of materials. Ready-to-wear or off-the-peg garments do not offer any level of customisation.

Each of these models has implications for cost to the wearer. Designing and making for one can be expensive in a commercial context. The economies of scale that most design and manufacturing industries rely on to operate can fail to apply in all kinds of ways, from designers' time to bulk-sourcing identical components. Bespoke items are expensive, often prohibitively so. Made-to-measure, while invariably higher cost than ready-to-wear, can offer a real sense of control and ownership at a much more reasonable cost.

We believe that there are opportunities for economically viable - and economically accessible - disability-related design for one, through coherent, structured and constrained services that are not fully 'bespoke', but still allow wearers/users to make choices that fundamentally define their product. Our research has shown that a sense of ownership is fostered through the act of making choices, even when these choices are highly constrained.

Hands of X

Hands of X is a research project that prototyped a service for wearers to make nuanced choices about the materials that their prosthetic hand would be manufactured from.

Hand prostheses, like many other disability objects, are prescribed to the wearer based on consultation with a prosthetist that tends to focus almost exclusively on functional requirements. While the wearer can make some aesthetic choices, these tend to be limited to a choice of skin tone in anatomically 'realistic' glove. For some robotic hands, the wearer can choose to wear these gloveless, where the material palette tends to be distinctly high-tech; carbon fibre shells, alloy chassis and black silicone gaiters. This is a 'ready to wear' model, albeit one where there are very few choices.

'Prescription' is at odds with a sense of ownership. As the late Eddie Small, one of our mentors and a prosthetic hand wearer since childhood said while discussing his prosthesis, 'when have I ever thought that this arm was mine? Not at all. Never, ever, ever have I ever thought that it's part of me.' (Schiller, 2019) Eddie spoke of his childhood fear of damaging his prosthesis because of his feeling that it belonged

to someone else, coming with a sense of responsibility to look after it on behalf of its prescribers, the limb fitting service. (Small, 2017)

At the other end of the spectrum are services that offer fully bespoke prostheses. Functional Artist and trained prosthetist Sophie De Oliveira Barata makes incredibly realistic prosthetic gloves for individuals, matching clients' skin colour and texture, hair patterning, and even tattoos. Through her Alternative Limb Project, she also produces remarkable pieces of prosthetics-as-art, exploring form, material and function with clients in extraordinary, and often quite extreme, ways. (de Oliveira Barata, N.D)

In Hands of X, wearers could prototype hands in combinations of materials from a limited palette of woods, acetates, leathers, felts and metals to specify a hand that told a story about who they are. This is a made-to-measure model of service, with defined product forms and constrained choice of materials. Yet after trying out combinations, recombining and refining, trying on and comparing, almost all of our testers and mentors arrived at a point where the whole 'clicked', and many said something like 'that's it!', or even 'that's my hand.'

Hands of X was installed as an 'experience prototype' within Cubitts eyewear in London. At the time, Cubitts were striking in offering a relatively constrained choice of frame shapes, yet each in a nuanced choice of materials. This (also found in furniture manufacturers such as Maruni, for example) both inspired our approach to Hands of X and also provided the perfect backdrop for the experience, working very hard to set our visitors' expectations – and expectation – of the choice available to them.

How much choice is enough choice?

Ownership was a theme that surfaced repeatedly during our conversations with wearers around Hands of X. Even though the choices were fundamentally constrained, the act of making these choices gave wearers a sense of agency that they hadn't experienced in prosthetics services before. No testers complained that there wasn't enough choice, and all were able to specify a hand that they felt was fitting for them. (Schiller, 2019)

Choice in eyewear

Eyewear is the most obvious example of an object that was once considered a primarily an assistive device, but which is now considered - for many people - at least as much a fashion accessory (Pullin, 2009).

In a long and complex history, one fundamental element of the destigmatisation of eyewear is the increase in choice of shape and material seen in the mid-20th Century as fashion-conscious brands entered the marketplace.

In 1948, the UK's National Health Service offered 33 adult frame styles, a range which remained the same for 35 years, when one new frame shape was added. The overseeing ministry of health continuously railed against offering 'too stylish' frames, strictly limiting the number of acetate frame shapes (more fashionable than metal frames at the time), and colours offered. Manufacturers who sought to offer slightly adapted, more fashionable variations on NHS frame patterns were refused licenses. (Gooding, 2021) In hindsight, eminent eyewear designer Laurence Jenkin considers that the NHS frames were actually well-resolved - yet the lack of perceived choice and the denial of any connection to fashion rendered them stigmatising nonetheless: an illustration of how impossible it is to disentangle wearable disability objects from the culture around anything wearable. (Jenkin et al., 2019)

The market was ripe for competitors willing to challenge the status quo, from experimental enfants terribles like Cutler and Gross, to Jenkin's Anglo American, Shuron and others who offered reasonably priced, nuanced takes on classic tortoiseshell frame shapes (Handley, 2011).

In 1985, a voucher system was introduced that allowed patients to choose their own 'private' frames, effectively ending the NHS frame range. Still, those 33 shapes, some in 6 colours, is probably far more aesthetic choice than you still are offered as a wearer of a prosthesis, hearing aid, or wheelchair cape.

If you have visited a dispensing optician in the past 30 years, you will be familiar with the overwhelming amount of choice offered. In amongst shelves of frames, there is a high chance that you can find a pair of glasses that tells the world a story about who you are - or who you want to be - that you are happy to tell.

Made-to-measure eyewear

This ready-to-wear model of eyewear is not the only possibility, though. With control of the mainstream eyewear market in the hands of three or four multinational conglomerates, the choice is fairly homogeneous. Many independent eyewear brands offer bespoke services (with the expense that implies). Cook has been experimenting with *Laughing Stock*, an eyewear provider more akin to made-to-measure service.

At *Laughing Stock*, Cook is a designer and maker of eyewear, but his service model is inspired deeply by his experience on *Hands of X* - based on fundamentally limited choice, but aiming to foster a deeper sense of ownership than a typical high street optician. Cook offers a range of less than ten shapes at any one time, occasionally retiring one shape in favour of a new one. All frames are made from ox horn, a natural material and byproduct of farming which offers infinite, nuanced variation in colour and figuring, from pale blond to coal black.

The client can try on test frames in the basic library of shapes and sizes to decide a shape. They then choose two pieces of horn from an extensive stock (for frame front and sides), using a shape mask to get a sense of how the figuring will work in glasses form. The frames are then made from these pieces of horn, in the shape and size chosen by the client.

In the role *Laughing Stock* client, Pullin found that the choice of specific material pieces felt somehow deeper than a choice between materials. In ways hard to articulate, some pieces 'spoke' to him whilst others did not. As a result the object seemed to feel something stumbled upon; discovered, and perhaps a different sense of ownership results. Since wearing the glasses for several years their irreplaceability means that he never considered changing them, as he might have with previous pairs. They took on more of the relationship that he has with a piece of furniture or a loved item of clothing.

We have taken this experience – the nuance of our relationships with everyday objects – into Studio Ordinary, our interdisciplinary research studio at the meeting point of design research and critical disability studies, co-founded with Fiona Kumari Campbell and other colleagues. In Studio Ordinary we are looking again at disability objects as we might any other object, where design choices speak of complex and nuanced identities beyond disability.

In some respects, this means designing these objects as *unremarkable*, and thus challenging the narratives of triumph and/or tragedy so often associated with them. We are designing disability objects that neither aim to 'disappear', nor to loudly demonstrate their remarkable technological advancement,

but rather to work as elements of everyday life. Ironically, unremarkableness is still a radical stance here – but we hope to play a part in its deradicalization.

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