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Re- think
Re- imagine
Re- purpose
Re- connect
Re- engineer
Re- model
Re- Made

Wallpaper*

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The Re-Made Issue
Design for a Better World

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Design for a Better World





Can you create a perfect circle?

Map Project Office

The industrial design consultancy's radical, waste-eliminating overhaul of mainstream mass production

Graphics Studio.Build *Writer* Jonathan Bell

What is the circular economy? What does it look like? How can the cascade of consumption be redirected so that it turns inwards and forms a holistic, unbreakable circle, a virtuous loop that saves materials, saves energy, and cuts down on emissions, pollution and waste? Is it even desirable to disassemble systems that have evolved over centuries, wipe the slate clean and start from scratch? These were just a few of the questions asked by Map Project Office at the outset of its work for Wallpaper* Re-Made.

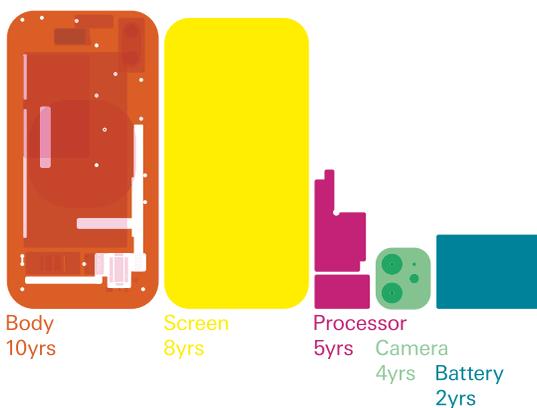
To challenge this apparent lack of accountability, we wanted a team of designers with an intimate understanding of the complexities of modern industry. Map Project Office was set up by Edward Barber and Jay Osgerby in 2012 as a counterpoint to the authored product design output of their own studio and the architecture and interior focus of their Universal Design Studio. Map focuses on crafted physical products for an increasingly virtual age. By bridging the gap between people and technology, the real world and the virtual, it looks to solve problems conjured up by the digital era.

Through a series of online workshops, Wallpaper* and Map sought to find a new approach to solve endemic problems. As part of Re-Made, Map is

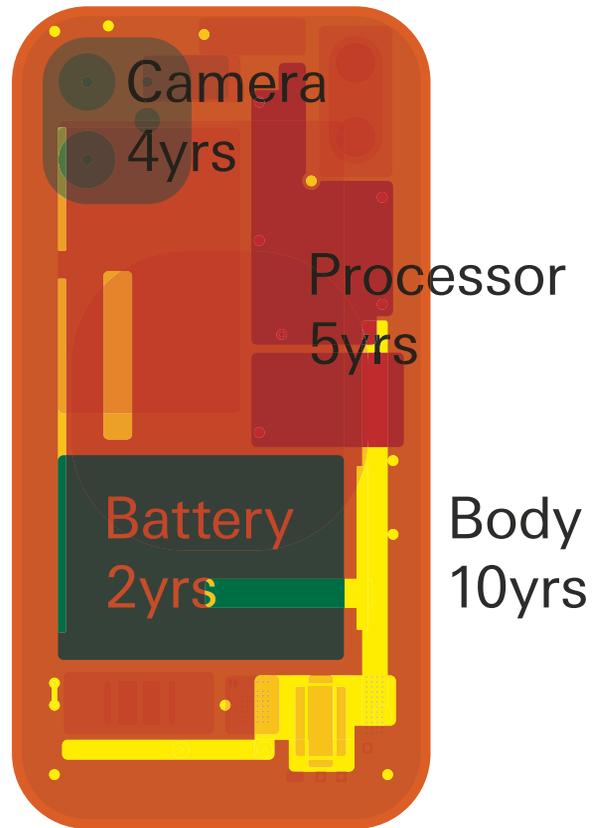
proposing a radical overhaul. 'We want to challenge the way products are made, with new infrastructure, and new systems,' says Map's Will Howe. 'As designers, we're considering the whole lifecycle. It's about designing for things to come apart and designing in an industry where some things are moving much faster than others, and how we negate the impact that has. Ultimately, the question is, can we develop a new terminology about product architecture that would be interesting and quite disruptive?'

As a first launch stage, Map is creating a speculative platform, Map Industries. Disruption can come from any direction. Only around 40 per cent of consumer electronics products are currently recycled in the EU. The majority of CE-certified products become landfill the minute they fail, become obsolete or are simply discarded. 'If we've got to the recycling stage, then we've effectively failed,' notes Map's Jamie Cobb. Map believes that a tipping point is looming. Rather than perpetuating the well-worn cliché of 'make do and mend', mainstream mass production must learn to incorporate circular thinking. An idealised system would look like a closed loop, a true 'ecosystem' whereby all materials used are simply ploughed back into manufacturing once their usage cycle ends. »

Rather than perpetuating the ‘make do and mend’ cliché, mass production must learn to incorporate circular thinking



Screen
8yrs



Power Issues and Embedded Energy

One element that is universal to every form of consumable, from smartphones and transportation to food, clothing and furniture, is power. The smart devices we increasingly rely on manage to sap relatively tiny amounts, while familiar domestic objects still make up a sizeable proportion of our daily power consumption. And yet power remains one of the most elusive of all commodities, measured in units that many people find hard to relate to.

In the discussions and workshops with Map, the idea of promoting and accentuating the role of embedded energy came up again and again. Map points out that a key aspect of true cyclical design is how to accommodate the embedded energy contained within a product before it has even left the store. Together, materials, manufacturing, transportation and distribution consist of about 75 per cent of a typical small consumer electronic device, with the actual power consumed during its usable lifetime just 15 per cent and the energy and time devoted to end-of-life processes an even smaller percentage – around one per cent according to Apple. For larger or more energy-intensive goods, like washing machines, fridges and kettles, the proportions are somewhat different.

A Bigger Circle

Circularity is an attainable and desirable goal. And the way to a more circular system is to massively increase the diameter of the ‘circle’ of ‘design-manufacture-

consumption-reuse’ so that each segment effectively balances out the other and ‘reuse’ feeds back into the loop. This is a massive challenge to product designers and manufacturers operating in a longstanding culture of ‘sell and forget’. Map hopes that this preliminary research will ultimately confront these behaviours and direct talent to create better products.

Some products appear better suited to looping than others, but design for disassembly needs to become the rule, not the exception. Companies are being more explicit about their ambitions in this area, like Apple, which states ‘we want to one day manufacture products without mining any new materials from the earth’. Ikea are ‘committed to designing all of our products to be 100 per cent circular from the beginning, using only renewable or recycled materials, and to developing circular capabilities in our supply chain’.

Big as these companies are, they acknowledge this will be a collaborative effort between designers, manufacturers, distributors, retailers and legislators. While a growing percentage of people identify strongly with moves to cut their personal consumption, this represents a tiny fraction of overall energy use; meaningful change must come from industry itself.

Endurance and Wave Theory

Time and time again, the question of ‘product endurance’ is raised. Map’s initial research suggested we treat products as if they have defined lifecycles, or waves. A taxonomy of these lifecycle waves might

Above, this speculative exploration of a product’s life cycle considers when its various individual components might eventually degrade and become unusable over time, and how these components could be separated to allow a product to last longer and yet stay desirable

Source: Map Industries

start with 'long wave' products like speakers, screens or radios, wherein the base technology isn't expected to evolve significantly, ensuring that the use value remains constant throughout the product's lifespan. We know that a traditional speaker can easily last for 30 years. But a smart speaker is also a computer, with all the in-built obsolescence and compatibility issues that entails. 'Mid wave' products might have half that expected lifespan, including regularly used domestic goods like washing machines, fridges and toasters. Finally, we have the 'short wave' category, the fast-moving gadgetry that is either engineered for a glorious but short lifespan or is designed to be made swiftly obsolete by a more powerful, desirable successor. These include the smartphone, certain toys, cameras, other smart devices and even batteries themselves.

More From Less

'Making do' need not mean arresting progress, nor should it impact on our product experiences. As key technologies become more discreet and embedded, it's theoretically easier to upgrade our experiences without resorting to all-new hardware; a simple, compact device transforms a TV into a smart device, or a high-quality speaker becomes an increasingly intelligent digital assistant. Some suggest that mass acceptance of over-the-air enhancements will result in the KonMari-ing of society and the creation of this fabled loop. This disregards the reality that sometimes it really is more sustainable to switch to a brand-new product.

Better Ageing

Some products will obviously age well because of their materials and construction, as well as the stability of their technology and function – a chair, for example. As Map points out, we're now tied to an economic system based around rapid product evolution and diversification. Traditional characteristics of 'long wave' products – such as patination, upgrade, repair and renewal – are scarcely considered. Map's experience is with design for mass production, not limited runs or one-offs. As a result, they are well placed to reshape the system. As designer Matthew Cockerill, working alongside the team at Map, points out, 'How products

are made is dictated not only by the designer but to a greater extent by the company tasking the designer and setting the brief. So we need to think like companies, not designers.' Their response is to set up Map Industries as the antithesis of the dominant 'sell and forget' model. Designing for endurance, repair, upgrade and reuse will be the new benchmarks.

Real Things in a Service Economy

Circularity must also embrace desire; the long-life product is part of a service, not a disposable asset. This is one of the keys to a circular future: the more integrated the product is to a particular service, the more value can be attached to physical longevity. The emerging 'access economy' is already the mainstay of most media operations, where the idea of physically owning a copy of a film or album is anathema to millions of consumers. Companies as diverse as Philips, Citroën and FoundPop no longer treat their wares as physical objects; you pay for the amount of light you need, not the bulbs and fixtures, or you pay for access to a city car or the short-term rental of furnishings for a pop-up unit.

Long Waves and Closed Loops

Display, consumption and identity are tightly bound together in a closed-loop system of their own. Yet many of our current behaviours are driven by a product's economic life – the point at which it is more expensive to maintain than replace. As Map suggests, we are at a point where the theories that have concerned academics for decades must rapidly relate to real life. The context in which we are creating, producing and consuming products must change. There is no sense in castigating the consumer if there is no genuine alternative. Map Industries wants to redefine the physical artefact for a long wave future and a truly circular product ecosystem, embracing creativity to ensure that desire drives us down the right path. If the most sustainable behaviour of all is to keep the product you already own, there is huge scope for shifting lifecycle waves to be made more explicit, more desirable and, most importantly of all, more achievable. ✱ mapprojectoffice.com

Designing for endurance, repair, upgrade and reuse will be the new benchmarks for mass production



Current
Take, Make,
Waste.

Future
Is Circular.