

# UpcyCIEd GarMEnts

Upcycling is the process of converting waste material into new products without degrading the quality and composition of the material for its next use. "Bis es mir vom leibe fällt " owner Elisabeth Prantner believes clothes can be reincarnated from one form to another, say from men's clothes to women's clothes, and so reenter the cycle until the fabric itself is in tatters. Working in Berlin but part of a larger movement, the collection takes inspiration from existing garments and promotes a vision where fashion transcends necessity.

**'BIS ES MIR VOM LEIBE FÄLLT'**  
**(TIL IT'S IN TATTERS)**  
**REVAMP AND REPAIR STUDIO**  
Elisabeth Prantner

**2014**  
Berlin, Germany

**WhaT is BroKEn?**  
The fashion cycle

# RE-DoNe AppLiAnces:

## Coffee Maker, Toaster and Kettle

Domestic appliances are not designed to be fixed or modified. This situation combined with cheap prices is incredibly wasteful, with 60% of the appliances thrown every year that could be saved. Re-do suggests an alternative. From standardised glassware like wine bottles and beakers, to recycled electronics, all elements are easy to find and replace.

This is not a vision of the future, but a strategy applicable today - a fix with a business plan.

**RE-DO STUDIO**

**2012**

London, UK

### **WhaT is BroKEn?**

Cheap injected plastic casings that are designed to fail, the whole system of small electrical appliances, if not the whole of our consumerist society

# StiTch-HacKING

'Who Made This'

## RE-kNITTING

### Spectrum Diagramme & Sample Garment

Re-knitting is an umbrella term for a broad range of processes that can be carried out to alter existing items of knitwear. The extensive Re-knitting spectrum diagramme demonstrates that knitting skills can do more than fix a problem - they can also fix our feelings towards our stuff through ingenious alteration. By hacking age-old skills and opening them up to new applications and audiences, Amy Twigger Holroyd hopes to invigorate a continuity between traditional and new creative practice. With stitch hacking, the change is even deeper as the very weave is modified to do more than initially intended. Even the most standardised garment can become a political statement.

**AMY TWIGGER HOLROYD**

**2010-2014**

Leeds, UK

### **WhaT is BroKEn?**

A piece of knitwear in your wardrobe - perhaps it is damaged, the wrong size, or you don't feel connected to it - Re-knitting can mend all of these things

# WooLfillEr

Repairing can become more than maintenance. Heleen Klopper sees it as an opportunity for creativity. Woolfiller enables almost anyone to repair holes and redesign their clothes by interlocking colourful felt into the weave with a barbed needle over a foam pad. This simple easy-to-use needle felting kit allows people to bring back to life moth-eaten loved jumpers and other textile belongings such as rugs. The satisfaction gained from the immediate successful repair generates confidence and a more cared-for personalised world. Klopper was part of Platform21, a Dutch design platform aiming to positively influence the relationship between user and product that operated between 2006 and 2010.

**HELEEN KLOPPER**

**2010**

Amsterdam,  
Netherlands

## **WhaT is BroKEn?**

A favourite cardigan, socks made by your granny, a moth-eaten blanket and our self-sufficiency

# New Kintsugi ANd CrEate ME / TextiLe kiTs

Celebrating the fix rather than hiding the repair is not a new idea.

The New Kintsugi kit is an adaptation of a 15th century Japanese technique for fixing broken pottery with gold. The Kit developed by Humade for easy application uses golden glue to highlight the lines of the break and give repair an aesthetic value. Similarly Create Me / textile is an iron-on transfer with modular shapes to cover holes, stains or customise clothes.

Humade sees repair as a creative challenge. Their innovative materials and techniques are purposefully easy to use to encourage people to fix their things whilst inviting their creative response.

**HUMADE**

**2012 & 2014**

Amsterdam,  
Netherlands

## **WhaT is BroKEN?**

The joy and ability of fixing and  
treasuring your things

# НораТii ꝞLacci CargMina ExpurqATa

(Josepho Juvencio, 1784) &

## Sacred Dramas

(Hannah Moore, c.1818)

Conservation is the preservation and repair of historical and cultural artefacts. Bookbinder Kathy Abbott sees repair as an opportunity to add cultural value. Using traditional techniques in a contemporary way she restores damaged antique books to their past glory and gives them renewed functionality. 'Sacred Dramas' had lost its spine and the boards were detached, and 'Horatii' had broken sewing in many places and a torn cover. The careful conservation work highlights the missing areas using traditional Japanese Kintsugi and Kozo-Shi tissues, uniquely emphasising the missing parts that could not be repaired.

**KATHY ABBOTT**

**2011 & 2013**

London, UK

### **WhaT is BroKEN?**

A book with no spine and detached boards, and a book worn and in pieces

# FITNESS

This farm-made weight-lifting equipment is one the fitness machines that were made in the late 1990s by young farmers in the Polish countryside. Youngsters assembled their inventive devices in hangars that they turned into community gyms - creating for themselves an alternative to the urban private clubs they longed for. The longevity of the machines, which continue to be used, demonstrates the skills and ingenuity that went into making them. Łukasz Skąpski filmed the younger brothers who have inherited them and perpetuate the body building tradition.

**ŁUKASZ SKĄPSKI**

**CIRCA 1997**  
Broniów, Poland

**What is Broken?**  
The teenagers' sense  
of community

# the iNvisibLe ciTy

Ad Hoc solutions and repairs are evidence of organic acts of creativity. Led by sociologist Marek Krajewski (from Poznan) The Invisible City is a photographic documentation of these events as found in various Polish cities. Shifting perceptions and raising appreciation, the project makes visible the materials and ingenuity that serve people as they overcome problems or find alternatives to things they lack in the urban space. The Project is supported by Metropolis Out-of-Home Communications.

**MAREK KRAJEWSKI**

**2014**

Across Poland

## **WhaT is BroKEEn?**

Lots of things: people's agency  
to fix things themselves



# ObjEcts RepairEd aNd iMprovEd wiTh Sugru

'The Future Needs Fixing' is the motto at Sugru, a company that produces a new mouldable glue that sets into a strong flexible rubber. Used by both amateurs and specialists to fix and improve, it is extremely malleable and can be shaped by hand. Once set it bonds most materials together. Inventor Jane ni Dhulchaointigh believes it enables users to unleash their natural hacker instincts and fix or improve their possessions. Sugru is a company, but it is also the facilitator for a community that encourages and shares clever, simple and humble solutions to waste and passive consumption.

## **SUGRU**

Jane ni Dhulchaointigh

## **2009**

(first invented  
in 2003)  
London, UK

## **WhaT is BroKEN?**

The future

# Bowling Chair

The figurative title of this armchair embodies Martino Gamper's sampling-like making process, which he describes as '3D drawing'. The technique and details of the connections, a legacy of his training as a cabinetmaker, are as much an insight into his process as they are the values of the final product. The subversive reassembly of machine-produced and hand-made elements highlights the intrinsic value of discarded materials and produces pieces that challenge preconceptions of typology, aesthetics and value.

**MARTINO GAMPER**

**2011**

London UK

**WhaT is BroKEn?**

Chairs

# IN HOUSE:

**Mixer pottery wheel, rotocasting device for washing machine, blender lathe and full table set with Bake Light Lamp shade**

Giving “Home Made” a deeper meaning, David Steiner hacks household appliances and products to develop “domesticated manufacturing techniques”. The full table set with accompanying lampshade was produced within his London flat. A mixer turns into a pottery wheel, a washing machine is turned into a rotocasting device, a blender becomes a lathe. Materials were also sourced ‘in house’, using baking trays, embroidery hoops, and pewter from old toys. This project demonstrates the intrinsic versatility of our domestic specialised technology, making us look afresh at our homes as sites for redistributed manufacturing.

**DAVID STEINER**

**2014**

London UK

**What is Broken?**  
Home manufacturing

# Fixperts Projects:

**Earring stapler (UK), Pita holder (IL), Needle threader (UK), Sock horn (UK), Bottle opener (UK), Cutting board (SA), Knife holder (SA)**

Fixperts is about fixing for someone. It is a creative social platform that encourages people who are good at making to reach out and find solutions for people in need of a bit of help. The Fixfilms capture the story of the fix and share it online alongside some of the designs that are made available as open design. Collaborating on insight, Fixpartners help Fixperts refine their solutions by testing prototypes and getting direct feedback. The ingenious solutions on display are part of a growing archive of over 120 projects from 16 countries. Some of the earliest Fixperts projects were made by Polish designers at the Warsaw Fine Art Academy.

## **FIXPERT TEAMS**

See films for credits

**2012 - 2014**

Worldwide

## **What is BroKEN?**

**The role of design in everyday life**

The organisation, the projects and the films exist thanks to a growing number of generous and educated volunteers worldwide; the co-founders of Fixperts are designers James Carrigan and Daniel Charny.

# ProsoLvE 370e

## Air Cleaning tiles

This modular exterior tiling system is coated in superfine titanium dioxide, a pollution-fighting technology that is activated by ambient daylight. The coated tiles break down and neutralise pollution particles. This system was first used in Mexico to clean the air around a hospital, and takes part in neutralising emissions of 1000 cars a day. Elegant Embellishment take architecture beyond formal, dormant aesthetics and create buildings that have a beneficial, active impact. The “smog-eating” prosolve370e depolluting façade demonstrates Allison Dring’s and Daniel Schwaag’s proactive interest in sustainability and digital fabrication in urban contexts.

### **ELEGANT EMBELLISHMENT**

Allison Dring & Daniel Schwaag

**2009**

Berlin, Germany

### **WhaT is BroKEEn?**

Architecture and architects

# ThreE TiMEs LUckY:

**First Time Lucky: Maria-Orange**

**Second Time Lucky: Baby Charm**

**Three Times Lucky: Grazie and Good Luck!**

Artist Hans Stofer's collection of Fragile Items focuses on the moment after the break. Whether capturing the arrangement of a breakage scene, or contemplating the creative possibilities contained within a bag bursting with broken cups, Stofer celebrates the beauty and energy that surrounds this moment in the life of any object. The swarming wasps that mend the broken plate hide the faulty lines, focusing our attention on the creativity that is the act of repairing. Stofer rejects the idea of waste and throws nothing away, saying that we have to treasure the things that have served us well. Everything gets used as long as it lasts or as a source of material and ideas.

**HANS STOFER**

**2013**

London, UK

## **WhaT is BroKEN?**

For Stofer, "broken" is another proposition for being

# SEa chair Project

The swarming plastic debris in our oceans is a terrible pollution but can it also be seen as a resource? Studio Swine thinks so and devises sustainable systems of production to raise awareness and offer alternatives for the future. The Sea Chair Project is a production line where marine litter is collected, sorted and used to manufacture new objects. The example you see here was made with waste collected from Porthtowan Beach, Britain's most polluted beach. The designers' longterm vision is for oilrigs to be repurposed into recycling floating factories, once the oil rigs has run out.

## **STUDIO SWINE**

Azusa Murakami & Alexander Groves

**2012**

Porthtowan Beach &  
London UK

## **WhaT is BroKEN?**

The sea

# Whole House Reuse

In 2011, the city of Christchurch, New Zealand was in part destroyed by a powerful earthquake. Many of the damaged houses such as 19 Admirals Way were left abandoned. Rekindle's Whole House Reuse project was initiated to show that broken houses, both physically and emotionally, are an incredible material resource that can spring new creativity. After a methodical deconstruction, each of the 480 salvaged materials was catalogued and offered to makers and designers for reuse. Through this international campaign Rekindle has embarked on a realistic discussion on the benefits of deconstruction over demolition.

**REKINDLE**

**2013**

Christ Church,  
New Zealand

## **What is Broken?**

Post-earthquake Christchurch -  
communities broken apart,  
infrastructure, houses;  
attitudes to salvaging



# ESOURCE

There is value in electric and electronic waste. Landfill workers in countries such as Ghana risk their health to retrieve valuable copper by burning the plastic around electrical cables. Esource offers an alternative with a sustainable cable recycling system that grinds and sorts plastic from copper. Inventor and maker Hal Watts believes informal recycling is valuable but should also be made safer. The plastic shredding method is not only healthier for people and the environment, but also produces higher quality raw materials giving them more value. This is a local, individual solution scalable in both practice and approach to a global problem.

**HAL WATTS**

**2012**

London, UK and  
Accra, Ghana

## **What is Broken?**

The informal recycling  
process for electrical waste

# Fair Phone

Mobile phones have become ubiquitous and the more versatile they are, the more indispensable they become. However, they cost the Earth a lot in terms of materials and wellbeing. Fairphone uncovers complex systems to change how things are made. By creating a smartphone, they are opening up an alternative supply chain, building new relationships between people and their products and starting conversations about what is truly fair. They are leading by example to expand the market for products that put ethical values first: "It's not just a phone, it's a movement." Over 45,000 phones have already been sold.

**BAS VAN ABEL**

**2013**

Amsterdam,  
Netherlands

## What is Broken?

Ethical consumption, supply  
chains, social values

# Project phOENiX

Once they stop working, it's not easy to recycle electronic items - that's why landfills are full of gadgets and domestic appliances. Project PHOENIX proposes to make recycling easier by redesigning and manufacturing a sustainable system for small electronic appliances.

What if products had no screws or glues and the user could separate electronic parts from the product's casing in an effortless way? The electronics would then be in a pre-addressed envelope ready to be mailed back to the manufacturers. The remaining parts could then simply go into the domestic recycling bin. This approach demonstrates End of Life Design suited for the circular economy.

**PAUL STAWENOW**

**2014**

London UK,  
Hamburg, Germany

**What is BroKEN?**

The cycle of materials

# Digital Calliper:

## 3 pitchers

Measurements from devices, such as a calliper, help build and design components. In the case of the Digital Calliper by Unfold and Kirschner3D, the measuring tool is connected directly to the design programme. The dimensions extracted during measuring immediately translate to volumes on the screen. These can then be easily adapted to printable files, making them highly suitable for making elements such as connectors that can fix existing things to each other.

This newly imagined tool using Parametric Standardisation releases the user from needing to understand a program or the operating technique in order to make parts that fit to existing things.

**UNFOLD & KIRSCHNER3D**

**2014**

Antwerp, Belgium  
and Herleen,  
Netherlands

## What is Broken?

The interface between digital and  
physical making

# The Great Recovery

Repair and the production of repairable and self repairing products have a role in the vision for the circular economy.

The current linear manufacturing model of 'take-make-dispose' is throwing up major economic and environmental challenges. The Great Recovery programme is a long term project aiming to promote collaborations that will lead to a wide application of circular systems. Initiated by the Royal Society of Arts (RSA) in the UK as part of their commitment to finding innovative practical solutions to today's social challenges. Their mission is to create a neutral space where all disciplines around the circle demonstrated by the diagram on the table can learn from each other to move towards a circular economy. Designers and material experts, manufacturers and resource managers, brands and retailers, consumers, policy makers and government, investors & academics. The RSA believes in raising awareness as to how good design thinking can help make the transition.

**ROYAL SOCIETY OF ARTS**

**2012**

London UK

**What is Broken?**

Our linear manufacturing system

# BaNg Theory:

**CD player, Headphones, Vinyl, Camera**

Many technologies have become seamless - pressing a button, swiping a screen, blinking an eye - much of how we operate stuff just happens and so most of us have no knowledge of how these actually work. This hidden complexity makes things very hard to fix. A Parede's Bang Theory make us realise the strange behaviours we adopt when we try to make do. Their videos make visible the intertwined relationship between humans and machines, and how sometimes instead of fixing them, they change us.

**A PAREDE**

Luiza Prado and Pedro Oliveira

**2014**

Berlin, Germany

## **WhaT is BroKEN?**

Knowledge of how things work  
and our access to mending,  
repairing and fixing them - or is  
it our perception that things have  
to be a certain way?

# HedgE TrEes PLeasE

In the winter of 2013 a large area of Somerset flooded. Many people were pushed out of their homes. The water and mud that caused this flooding came from the uplands of the hills. Hedge Trees Please is a campaign to help reduce the water run off the hills. Trees are the natural antidote to soil erosion. By giving away potato-starch tree protectors to identify and preserve 10,000 trees in the hedgerows they have in effect added a forest without taking up any land. This campaign, started by a local farming family, empowers others to join in taking responsibility for their environment.

Campaign:  
**LYN & ALEX MOWAT**  
tree guard:  
**WILLIAM BRANT**

**2014**  
Somerset, UK

## WhaT is BroKEN?

The soil, the confidence of people  
in their influence, the way the  
hedge trimming system works