

regenerative evolution

From its humble beginnings, upcycling has been slowly but surely absorbed into the mainstream. Carla Sorrell finds out what's next for the ultimate in sustainable design.

In a few short years upcycling, or creatively re-imagining waste materials, has become a popular buzzword, used across design disciplines from furniture to fashion. The term was first recorded in 1994 when Reiner Pilz, co-founder of automation technology company Pilz GmbH, used it to distinguish between two strands of recycling: downcycling and upcycling. Simply defined, upcycling is: 'The practice of taking something that is disposable and transforming it into something of greater use and value.'

Upcycling is deeply rooted in storytelling: a good piece of design will have a story to tell. The process has been adapted internationally, with a long tradition of innovation in Europe, and a lot of exciting ideas coming from Brazil and Africa recently. Cynthia Smith, curator of socially responsible design at the Cooper-Hewitt, National Design Museum, New York, sees this as a long term development: "Sustainable use of materials through regenerative design will continue to be more widely used throughout the world as materials and resources diminish and world population grows."

Pioneers like Ron Arad and Tom Dixon gave upcycling a high profile in 80's London. They channelled the spirit of anarchic punk rock into their salvaged, experimental furniture, pieced together from old car seats, scaffolding and scrap metal. Arad's One Off gallery and Dixon's Creative Salvage showcased unique pieces of furniture whose conceptual re-use of materials was as much art as design. Dixon has remained interested in ideas around re-use. Later noteworthy initiatives include his 2nd Cycle project for Artek, where second-hand Aalto furniture was sourced, collected and re-issued embedded with an RIDF tagging system storing the piece's history and allowing the new owner to add their part of the story.

At Germany's Expo 2000, sustainable design was in the spotlight under the The Hanover Principals, written by Michael Braungart and William McDonough. The pair went on to write the bestseller *Cradle to Cradle*, looking at systematic changes to production, manufacture and the way we measure progress. Upcycling in and of itself has limited scope and depends on

availability of waste. "Cradle to Cradle thinking is far more important and incorporates upcycling within the design process," says Diefabrik's Stefan Hölldobler. "Upcycling alone is not progressive enough, 90 per cent of it is a reaction to something." As one of many strands to fall under the umbrella of sustainable design, upcycling has garnered its own reputation, but has also led to other initiatives.

The 2009 recession too easily claims credit for upcycling's current popularity, though its effects brought the trend to its tipping point. Henrietta Thompson's book *Remake It: Home*, based on years observing designers upcycle materials, was well into production before its release in the same year. In her introduction Thompson reminds the reader of upcycling's long history: "Designers have been rummaging in bins for as long as there have been bins to rummage in." The book includes hundreds of designers who have employed some form of remaking to create their own interior products.

Clockwise from right: Aalto; Hendzel + Hunt; Diefabrik; Zoe Murphy; Diefabrik; Aalto



Clockwise from top: Studio Schneemann; Hendzel + Hunt; Jahara Studio; Studiomama; Diefabrik

Below: Zoe Murphy



The now prevalent patchwork or scrap yard style characteristically associated with upcycling, and the 'make do and mend' school, is almost so dated that it has become cool again, a default aesthetic now replicated by manufacturers mimicking the look without the value added process, such as Boym Partners Tin Man Canisters. On the other end of the spectrum, many designers conceal obvious traces of an upcycled product, in favour of incorporating the process into the brand or designer's overall aesthetic.

Hendzel + Hunt's reclaimed furniture and cabinetry has a sophisticated and deliberate style. Jan Hendzel believes that, "You can obtain very high end, beautiful objects by the careful consideration of material." Jahara Studio incorporates numerous material approaches across its colourful

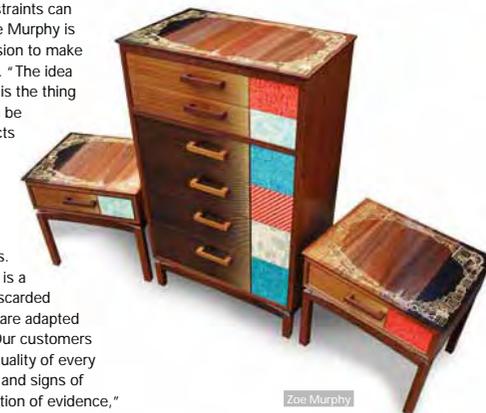
range, including recycling aluminium into its stunning *Batucada* Collection. Martino Gamber has always experimented with re-use. His Olympic commission *Bench to Bench*, a trail of benches leading through East London to the Olympic park, subtly incorporates recycled and reclaimed wood.

"Designers approach their work based on different needs, and not always in pursuit of the bottom line," points out Smith. Practice and output is naturally limited by the restraints any designer puts on their own practice, and these restraints can be continual inspiration. Zoe Murphy is enthusiastic about her decision to make re-use the core of her work. "The idea and ethics behind my work is the thing that drives me, and this can be applied to a world of products and styles; enough to last my lifetime alone."

Multiples can be a challenge when a design depends on the unique attributes of found materials. Diefabrik's popular *Tombox* is a classic upcycling project: discarded record player loudspeakers are adapted to become mp3 players. "Our customers enjoy the individuality and quality of every *Tombox* and see the patina and signs of usage as a type of preservation of evidence,"

explains Hölldobler. "However, we need to hunt down every loudspeaker and sometimes they aren't easy to find, which means that we are sold out quite regularly. But this is the nature of an upcycling project, and we don't want to depend on one project anyway."

However, for some designers an upcycled project will outgrow itself. Maarten de Ceulaer and Julien Van Haver's *Iron Bookends* were originally simple painted steam irons created for a one off event. When they all sold out, Ceulaer decided to develop the line commercially, casting the shapes in industrial plaster and dipping them in rubber instead of looking further afield to collect large quantities of discarded irons. ▶



Zoe Murphy

Reproducing a clever but time consuming design can be cumbersome and inefficient for a studio. After Anneke Jakobs made a few Chiquita Chandeliers, compiled of discarded banana crates, she decided to sell the instructions on her website for 5 Euros, offering industrious customers the chance to do it themselves. Studiomama's Nina Tolstrup sells instructions for her pallet furniture for £10 a piece. Tolstrup has called herself an 'agent of social change' and rightly so. In 2009 she had three pallet chairs customised by artists Gavin Turk, Cornelia Parker and Racheal Whiteread; they were auctioned off to support a workshop in Lugano, Buenos Aires, where her instructions are used to make saleable furniture from abundant scrap pallets.

Not only is Tolstrup's pallet furniture a clever design, it is a successful agent for social change. Designers like Tolstrup, with an open-source mentality, share their inventive upcycling solutions to be adapted for community use and income generation in developing countries. For his playful and socially conscious 'A Flip Flop Story,' Diederik Schneemann worked with Uniqueo, an initiative collecting some of the estimated annual 30,000 kg of flip flops that wash up on the shores of Eastern Africa.

After much testing, recent Royal College of Art graduate Florie Salnot developed her plastic bottle project, a method of transforming discarded plastic bottles into jewellery using hot sand to mould them into shape. Working with the Saharawi refugees in South West Algeria she explains how she slowly refined the process: "The fact that the life constraints in the camps are so big helped me, in a way, to push the process of upcycling very far. When something was not working as I wanted, I was not tempted to look for another easier solution."

Partnerships, skill sharing and increased awareness of people and the environment mean idea generation moves in many directions internationally, between individuals and communities, between professionals and amateurs, between locals and visitors. "New ideas, approaches and innovations are often generated locally, and increasingly from emerging and developing economies with limited resources, are spreading north to more industrialised countries," explains Smith. She adds that, "In Cairo, Egypt's Zabaleen community recycles close to 85 per cent of the material they collect door-to-door, upcycling textiles, bottles and bags for both a local and international market."



Clockwise from above: Studio Schneemann; Florie Salnot; Martino Gamper; Hendzel + Hunt; Hendzel + Hunt; Florie Salnot; Studiomama; Jahara Studio

Clockwise from above right: Hendzel + Hunt; Martino Gamper; Zoe Murphy; Florie Salnot; Hendzel + Hunt; Hendzel + Hunt; Studio Schneemann



Above: Diefabrik

Below from left: Martino Gamper; Hendzel + Hunt



Maarten de Coulaer & Julien Van Havere



Ron Arad



Studio Schneemann



Below from left: Martino Gamper; Hendzel + Hunt

Upcycling itself is part of an evolution in regenerative and sustainable design. The current crop of young designers and recent graduates instinctively incorporate socially conscious methods into their process rather than making a feature of them; this is a good indication of what comes next. In a global society it seems only right that we all start to take a bit more responsibility for accumulated waste, bringing our rubbish back off the curb and into our homes and closets, albeit in a more stylish state than we last saw it. ■

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