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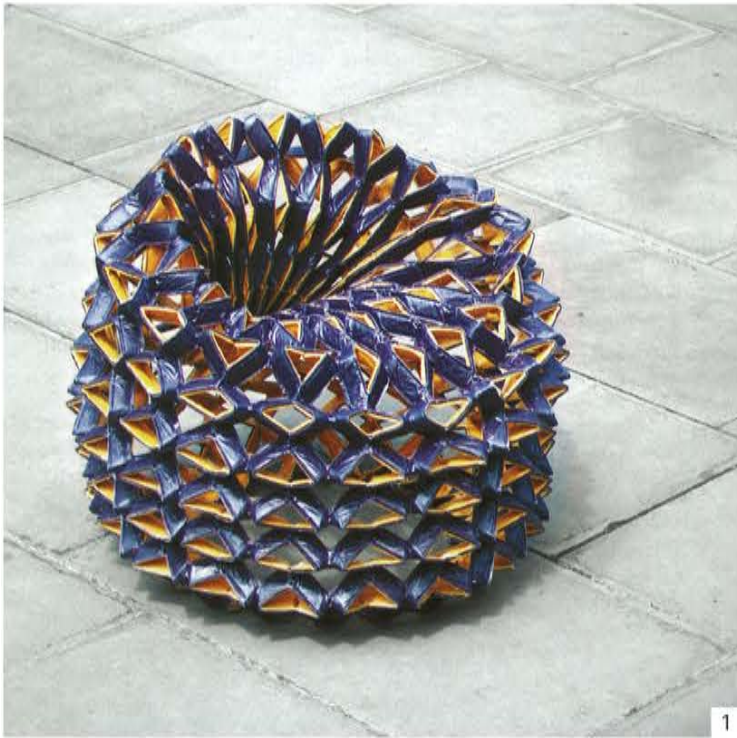
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HAPPY FEET

*Golden footprints
in an installation
in Montreal. See
Surfaces Focus, p62*





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BRIEF ENCOUNTERS

Let's hear it for the new generation of designers working towards a happier, healthier, more productive and sustainable workplace. Veronica Simpson checks out the finalists in KI Europe's Kickstart competition

AS AN ADVOCATE for sustainable design, I must admit to feeling pretty ambivalent about the yearly cycle of design student shows. It's not that the displays of creativity and experimentation with texture, colour and form aren't often thrilling, it's that I feel we need to be encouraging a very different dialogue about design, rather than succumbing to the usual manufacturer-driven promotion of differentiation and newness as a viable lifestyle/business choice, regardless of the impact on the planet.

So when the inevitable London design fiesta ensued this September, I found my eye caught by one thing in particular: furniture manufacturer KI Europe was showcasing >

a bunch of talented graduates from the RCA/Imperial College innovation design engineering double-masters course, who had entered KI's new KICKSTART competition, the brief for which was to devise products that foster 'a happier, healthier, more productive and sustainable workplace'. Having made my way to KI's London HQ to check out the finalists – whose work is on display until this month – I am happy to report that they have responded to the brief with flair and originality.

Let's start with Elena Dieckman's Aeropowder, made from chicken feathers. Dieckman took one of the most useless byproducts of the food industry – the UK produces around 2,000 tonnes a week of feather waste, usually ending up as landfill – and explored its potential as a material. Having experimented with more than 400 variations of the material, Dieckman has created five different powders that can be used to transform existing products and materials, from paint to concrete to insulation foam, adding to the mix the feathers' own unique properties: dermatologically inert, non-toxic, lightweight, insulating and water repellent.

Philippe Hohlfield was seized by the idea of wasteful transportation, particularly that arising because of the unequal trade between China and the USA, whereby containers that have brought cheap goods to the USA are sent back empty (there is clearly nothing Chinese consumers want or need from the USA). His 'Growframe' is a container-friendly frame

made from aluminium components that can be collapsed and taken apart for easy, space-efficient transit. They are paired with an innovative hydroponic growing system designed to slot into the frame, comprising recyclable polybags that can grow a crop of vegetables or plants from seed, in water, in the three-four week return journey; the seeds are nourished by LED lights built into the frames. In this way, there is a crop ready to harvest when the containers reach their destination. Genius! Hohlfield is already in discussions

There is much to admire in KI's KICKSTART initiative, especially putting design skills to work for sustainability

with enterprising shipping companies.

Biofuel is supposedly one of the solutions to global warming, but its manufacture also creates waste. Materialize X by Haidin Rashid takes the leftover biofuel waste, combines it with non-toxic chemicals, natural fibres and an organic binder, to form a durable material that can be specified to last a particular period of time – from months to years to decades. Its applications range from temporary flooring and roads (for festivals or construction sites) to office flooring, wall coverings, worktops and

packaging. Haidin commented: 'We take this biodegradable waste and turn it into something useful, which also has the potential to replace environmentally harmful materials in use today. By creating a new income stream for biofuel producers, we hope to also give their industry a much-needed boost to becoming cost competitive with fossil fuels.' Haidin has already set up a start-up company: materializex.com.

John Routledge's Recandescent is apparently the first 'cradle-to-cradle' light source. It comprises four parts, all of which can be replaced or repaired, recycled or reused. But the most remarkable part is the light element, made from 'hot mirror' technology. Hot mirrors are optical devices that reflect electromagnetic radiation in the infrared range, but allow visible light through. Creating more visible light output than an incandescent source, the element is twice as energy efficient as LED lighting. The light emissions are also more akin to natural light, unlike LEDs and fluorescents. Although the hot-mirror technology is currently expensive, as applications increase it will come down in price. As well as being far more energy efficient these bulbs also eliminate the toxic, hazardous waste associated with LEDs.

All of these products are laudable. But there were two winning projects: Christian Felsner's Aktor, a completely malleable piece of furniture, 'reuniting the consumer with craftsmanship'. Delivered in a roll 1.7m high and 20cm wide, it is a kind of intelligent mesh, made of a thermoplastic core sandwiched between two layers of felt and connected via 2,240 joints. After warming the material for a mere 10 minutes – by plugging the roll into the mains – you can pull and push it to form any kind of shape, from bean bag to bench to chair. It sets firm in that shape, and can be reshaped whenever you like. It is produced from plain sheet materials with minimum wastage, and can be scaled to suit many applications, from disaster relief to packaging solutions and DIY.

The other winner was Christina Pederson, whose wearable light technology, LYS, is designed to enhance wellbeing by monitoring the wearer's daily exposure to harmful and positive light sources, and offers a compensatory, customised light programme.

There is so much to admire in this KICKSTART initiative. For one, the enterprising and future-forward way that two academic institutions and disciplines are working together (Imperial College's engineering expertise married with the RCA's creativity makes for a powerful union). Secondly is the fact that, as KI marketing manager Rishi Mehra says: 'These projects are aesthetically pleasing but also commercially viable.' But most importantly they are evidence of what can happen when different demands are made of the problem-solving skill sets of designers and engineers – not 'How can I make my name/fortune through branding and differentiation?' but 'How can I put brilliant design skills to work in the service of long-term sustainability?' **FX**



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1 One of the winners in the new KICKSTART initiative was Christian Felsner's Aktor, a malleable piece of furniture that can be reshaped

2 The other winner was Christina Petersen's wearable light technology LYS that monitors exposure to bad and good light sources

3 Aeropowder by finalist Elena Dieckmann exploits the huge feather waste from the food industry and rechannels the feathers' unique and beneficial properties

4 Finalist John Routledge's entry Recandescent appears to be the first 'cradle to cradle' light source, made from hot-mirror technology

5 GrowFrame by finalist Philippe Hohlfield enables returning empty ship containers to grow a crop by the time it reach its destination

6 Finalist Haidin Rashid's Materialise X takes the waste from biofuel production and combines it with non-toxic chemicals and a binder to form a durable material



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