

A new company has found a way to make psychedelic plastic slabs for cutting into shelves and furniture, all from recycled squeeze bottles.

Martin Wright followed the process. Photographs by **James Johnson**

Plastic meets Pollock

Visitors to the Science Museum's children's centre in London are treated to desks and benches made of a new material. They are cut from smooth plastic slabs which explode in a riot of colours: blues, greens, pinks, reds and yellows cascade across the surface like a Jackson Pollock frieze. This effect is not the product of painstaking design, but pure serendipity.

The plastic sheets are made from brightly-coloured squeeze bottles which once held shampoos, detergents and the like. Crushed, heated and pressed, they fuse together, the original hues combining in one vast splash of colour.

The resulting material can be used for everything from worktops to splashback tiles, from tables and chairs to bathroom floors. Ben Kelly, the designer for the Science Museum project, fell for it immediately: "As soon as we saw the material, we were really excited by it. Not only did it look good, but it also matched all of the tough specifications which the museum set us: it's robust, long-lasting, it doesn't show the dirt, it's not easily scratched, there's no danger of children hurting themselves because of it, and, most important, you can't set fire to it!"

The sheets are produced by the Made of Waste partnership and are the brainchild of designer Jane Atfield, who hit on the potential of plastic bottles in 1992, while studying for an MA in furniture design at the Royal Academy.

"I'd started experimenting with recycled materials, and then a friend brought back this tiny sample from a New York trade show. I loved the colours and the feel of it." She contacted the American company who made it, and started importing her own supply. The chairs and tables she made from it had an immediate impact, and soon she had a commission for a student bar at the University of Westminster.

With this level of interest, she decided it was time to start producing the sheets over here. "As well as the cost, it's not exactly environment-friendly to ship

the stuff all the way across the Atlantic. It rather clashes with the fact that it's recycled."

In search of solutions, Atfield got in touch with the British Plastics Federation, and was introduced to Colin Williamson. With many years of experience in the industry, he now chairs its recycling council. By coincidence, he'd seen one of Atfield's chairs at a Crafts Council show, and liked it. "Plastic's a fantastic material," he says, "but for the most part it's not recycled in a particularly imaginative way. It's just dyed black and turned into bin-liners or builders' buckets." He jumped at the prospect of exploring more creative uses.

So the designer and the industrialist went into partnership, and Made of Waste was formed in January this year.

There was no shortage of raw materials. After a slow start, plastics recycling in the UK is beginning to take off. There are now 1,000 plastic bottle banks, and we drop around 60 million bottles into them each year. Many of these end up at a plant in Yorkshire, where they are thoroughly washed, and then crushed into bits, "like tiny multi-coloured cornflakes", as Williamson puts it.

The next step was finding a

factory with presses powerful enough to transform them into solid sheets. After asking around, Williamson discovered the Stanley Smith plant in Isleworth, Middlesex. Its huge hydraulic presses, dating from the Twenties, had originally been used to turn out plywood for boats. They proved ideal for pressing plastics. The process is simple: the flakes lie between the presses, and are heated and squashed. They melt and fuse together, the colours flowing into each other. The end product is a series of slabs, two metres by one metre, no two sheets the same.

The only relic of their former life is the scent. Somehow this survives the pressing, so that, for the first few months of its life, the chair or desktop carries a whiff of the bathroom cupboard.

The boards themselves are tough but easily used. "You can work it like wood," says Williamson. "You can cut it, drill it, screw it — use it for anything which you'd use wood or MDF for." But, unlike wood, the plastic does not need to be coated or treated in any way. You can spill boiling water on it with impunity (although hot pans are not recommended). It's also waterproof and easy to clean: advantages that help off-

set its cost — about twice the price of MDF — with a 12mm thick, two by one metre sheet priced at around £66.

Some of its more dramatic uses have included office furniture and studio sets for Live! TV, and canteen table tops at Gray's School of Art in Aberdeen — by special request of the students. But it also has a growing number of residential fans.

Maurice Herson bought some as worktops for a new kitchen in his Oxford home. "There's such a great mix of colours we can't even tell whether it's dirty sometimes. And we really liked the idea of making use of something recycled. Everyone who sees it says, "Wow, that's great!" and then, "What is it?"

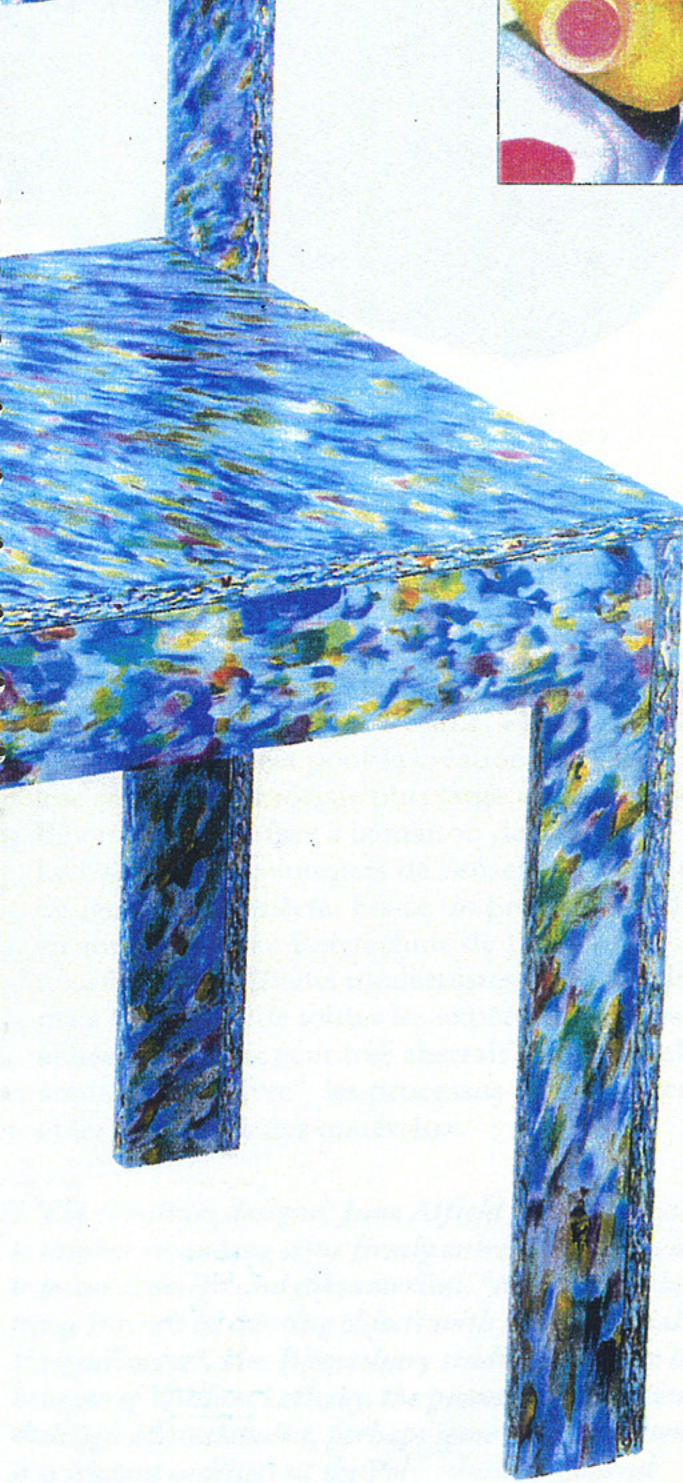
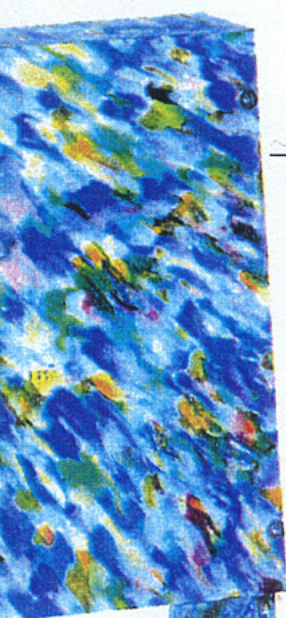
Others have used it for bathroom floors and tiling, basin stands and shelves, hall mirror frames and shower screens.

The colours depend entirely on the mix of bottles. Made of Waste offer five broad types, based on sorting of the bottles before they are crushed. The "softest" is a "natural" mix (mainly using milk bottles), which has a creamy, slightly marbled look to it — not unlike a slab of Kendal Mint Cake with the odd dash of colour. Then there are the "louder" types, with a psychedelic mess of blues, greens and yellows.

There are even seasonal and regional differences, says Atfield. "The mix collected in Devon is different from Glasgow, and the winter mix different from the summer." It is even possible to trace new lines. "A few months ago, Flash introduced an orange bottle — and now we're seeing that colour appear in the sheets."

The partnership hopes to get investment for a machine which can "read" the colours of the bottles and sort them into customised combinations. "If a client wanted a particular mix of, say, blue and red, we could programme the machine accordingly," Atfield explains. "They could even walk along the supermarket aisles and pick out the colours they wanted." So Tesco could serve as a colour chart? "Exactly!"





Going round in circles: *Wade of Waste* uses recycled plastic squeeze bottles (above) to create a material that can be used in much the same way as MDF (facing page).

Designer Jane Attfield fell in love with the riotous mix of colours the process creates, and has used the sheets to make chairs, tables, bowls, shelves and mirrors

