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Plastic
The elephant in the room

It's man-made, it's virtually indestructible and it symbolises everything that's wrong with our throwaway consumer culture. If only the truth were that straightforward.

By Sam Knight

At the end of a cobbled mews in Notting Hill, west London, in a series of small, dark rooms, you can track the advance of plastic containers into our lives. The Museum of Brands, a collection of pill bottles, chocolate wrappers and other artefacts of consumption, is sandwiched between a packaging design company and a smart dressmaker. In its low-lit displays, plastic emerges in the late 1950s and steadily encompasses more and more of the things we buy, consume and throw away. The first piece of plastic packaging appears just after a cabinet devoted to the Coronation: a pink bottle of Outdoor Girl talcum powder. The odd tub of detergent then presents itself before the 1960s deliver up Britain's supermarket diet: Coco Pops (1960), Spaghetti Hoops (1966) and Smash Instant Potato (1968). From the introduction of "Ski with real fruit" yoghurt in 1963, plastic spreads in all directions to its current eminence as the wrapping of choice for more than half the packaged goods in the UK. By the time the visitor reaches the present day – a bright archway of rainforest berry drinks, Asda probiotics and Nivea cell-renewal creams – it's so ubiquitous you barely notice it. What else could two litres of Diet Coke with lime possibly come in? >

Close up, plastic packaging can be a marvellous thing. Those who make a living from it call it a forgotten infrastructure that allows modern urban life to exist. Plastic film, bottles, trays and pallets have helped society defy natural limits such as the seasons, the rotting of food and the distance most of us live from the fields and factories where our dinners, drink and drugs are produced. Evolved under the pressure of ever-rising oil prices, transportation costs and technology that allows goods to stay fresher for longer, plastic packaging is now absurdly sophisticated compared with the objects it contains. Temperature control for mushrooms; laser-drilled holes for salad bags; seven alternating layers of film inside a carton of UHT milk... all this from just 2 per cent of the world's oil production.

And yet we do not like it. Increased use of plastic packaging in the 1960s led to fears that cows were swallowing polythene bags, and helped speed the passage of the Litter Act of 1971. The oil crisis then brought a wave of revulsion against our conspicuous reliance on foams, disposable coffee cups and the quantity of plastic rubbish in the sea. Partly we do not like waste – and used plastic packaging is often ugly and bulky – but plastic waste, with its hydrocarbon roots and industrial manufacture, is especially galling. We do not know where it comes from, and we do not know where it goes to, only that there is too much of it. In 2008, the UK will produce around two million tonnes of plastic waste, twice as much as in the early 1990s. The very qualities of plastic – its cheapness, its indestructible aura – make it hubristic, a reproachful symbol of an unsustainable way of life. When the subject comes up in conversation, someone usually ends up quoting *The Graduate*. Benjamin Braddock (played by Dustin Hoffman), beside himself with awkwardness at his parents' drinks party, is taken aside by a well-to-do businessman keen to impart his wisdom. "I just want to say one word to you – just one word," says the businessman.

"Yes, sir," replies Braddock.

"Are you listening?"

"Yes, I am," says Braddock.

A grave pause. "Plastics."

Did anything ever sound so philistine?

The facts, however, do not justify our unease. All plastics are, at least theoretically, recyclable. Plastic packaging makes up just 6 to 7 per cent of the contents of a British dustbin by weight and less than 3 per cent of landfill. After lagging behind for years, the UK is now on course to meet European Union recycling targets for plastic, while supermarkets and brands that are under pressure to reduce the quantity of packaging of all types that they use are finding good environmental reasons to turn to plastic: it is lighter, so requires less energy for transportation; it requires relatively little energy to produce; and it is often re-usable. An Austrian study in 2004 found that if plastic packaging were removed from the supply chain, packaging tonnage as a whole would have to increase fourfold to make up for it.

So are we just wrong about plastic packaging? Is it time to stop worrying and learn to love our disposable sandwich cartons? Certainly there are bigger targets for environmental savings – household insulation, energy emissions – and the plastics industry is keen to point them out. What's more, anxiety over plastic packaging has produced a squall of conflicting initiatives from retailers, manufacturers and Britain's 465 local authorities. It's a squall that dies down and then blows harder from one month to the next. "It is being left to individual conscience and supermarkets playing the market," says Professor Tim Lang, one of the prime minister's sustainability commissioners. "It's a mess."

But acknowledging the good qualities in plastic packaging – and the wrong-headedness of some reflex measures to curb it – cannot be allowed to obscure two unavoidable truths: our current, single-use relationship with plastic packaging cannot last; and change, both in the materials that we use and in the ways in which we consume, is going to come largely through the market. So our behaviour matters, but what to do? The customer is both king and fool at once.

PHOTOGRAPHS: CHARLIE BIBBY

Main types of plastic

Most plastics are polymers, made up of long chains of identical molecules. Depending on their structure, they exhibit a range of properties.

Polymer	*Product examples*
Polyethylene terephthalate (PET)	Fizzy drink and water bottles and salad trays
High density polyethylene (HDPE)	Milk bottles, bleach, cleaners and most shampoo bottles
(Linear) Low density polyethylene (LDPE)	Carrier bags, bin liners and packaging films. Same molecule as HDPE, but less dense structure increases flexibility
Polypropylene (PP)	Margarine tubs, and microwaveable meal trays
Polystyrene (PS)	Yoghurt pots, foam burger boxes, egg cartons, plastic cutlery and packaging for electronic goods and toys

DICK SEARLE LIKES TO CALL HIMSELF MR PACKAGING. He came out of retirement last December to become chief executive of the Packaging Federation, a one-room serviced office by Victoria Station that represents Britain's £10bn packaging industry and 85,000 employees. "This is it," he says, stretching out his arms and nearly touching the walls. "I am the Packaging Federation."

For 30 years, Searle worked in Britain's competitive, consolidating packaging industry and he has a highly developed sense of its contribution to our lives. "What has packaging done for me? That is the bit which just isn't understood," he says. The question is addressed at length in a PowerPoint presentation called "The Role of Packaging in Modern Society", which he gives two or three times a month to audiences around the country. In his speech, Searle describes packaging as the "enabler of shopping as we know it" and describes how supply chains have evolved to meet the hectic needs of modern life.

According to Searle, packaging has played an unacknowledged role in the expansion of cities beyond one million inhabitants and the emancipation of women. But his most arresting claim is undisputed: that societies without sophisticated packaging lose half their food before it reaches consumers. In the UK, waste in our supply chains is about 3 per cent. In India, it is more than 50 per cent. The difference comes later: we throw out 30 per cent of the food we buy – an environmental cost in terms of emissions equivalent to a fifth of the cars on our roads.

Societies without sophisticated packaging lose half their food before it reaches consumers. In the UK, waste in our supply chains is about 3 per cent. In India, it is more than 50 per cent

Packagers do not like to choose one material over another – cardboard, metals and glass all have their good points – but there's nothing quite like plastic. With more than 20 families of polymers to choose from and then, sometimes, blend, packaging designers and manufacturers have a limitless variety of qualities to play with. There is the clarity of polyethylene terephthalate (PET), used in most plastic bottles and trays; the strength of high-density polyethylene (HDPE), the cloudier polymer that goes into milk bottles; and easy-sealing polypropylene (PP) which makes bags and films. Plastics are so versatile that they have qualities you would not necessarily associate with inanimate objects. PET, for example, has very good creep resistance.

But if there is one law of plastic that, in environmental terms at least, supersedes all others, it is this: a little goes a long way. A few grammes to make a plastic bag; 20g for a bottle. The implications of this are huge. It means, first, that plastic is relatively cheap to use – it represents just over one-third of the UK packaging market by value but it wraps more than half the total number of items we buy. Second, it means that even though plastic encases about 53 per cent of products we buy, it only makes up 20 per cent by weight of the packaging we consume. And in the packaging equation, weight is the main issue because the heavier something is, the more energy you expend moving it around. Glass is the opposite: it also accounts for 20 per cent of the packaging we consume by weight, but only 10 per cent of the goods we buy come packaged in glass.

(Clockwise from left): an early example of plastic packaging for Outdoor Girl talc from the 1950s; a Squezy detergent bottle from 1956; and Ski yoghurt pots from 1963

The unbearable lightness of plastic packaging is the fundamental reason – despite the complexity of its recycling, despite the doubling of its raw material prices since 2004 – that it remains the wrapping of choice for so many goods. And as retailers, government agencies and manufacturers increasingly make decisions based on "life-cycle assessments" that evaluate the total environmental impact of transport operations and production lines, it seems likely to remain so. These are the decisions that the packaging industry is anxious to highlight, and they can make righteous indignation against plastic look plain irrational.

Take cucumbers. Since October last year, The Co-op has been selling cucumbers without a layer of film. "The wraps are off," says a spokeswoman. In response, the Cucumber Growers' Association (CGA) tested 20 cucumbers, which it refers to as "cues", against the new conditions, under which they are now transported in a plastic bag inside a protective cardboard box and then placed, filmless, on the supermarket shelf. (Most wrapped cucumbers are shipped on re-usable plastic trays, but these have sharp edges which would damage the naked ones). The cucumber growers argue that more packaging than the original 1.5g per item is now being used – albeit out of sight of customers – in return for a loss of more than a week of shelf-life and frost damage in the fridge. "Most people have their refrigerators set to 4°C," complains Derek Johnson, of the CGA. "That's far too cold for a cue."

In the same vein, Marks & Spencer commissioned a study to find out which had less environmental impact: selling apples loose or wrapped. "We wanted to understand the actual science behind it," says Helene Roberts, head of packaging. Measured by tonne of apples sold, M&S packaged apples (four on a paper tray, covered by plastic film) needed 27 per cent less packaging than those sold loose (moved from one cardboard box to another). "It's quite a hard message to get over," admits Roberts. Other attempts to cut down on packaging have produced similarly mixed results. Asda, for instance, took all fruit and vegetables out of its packaging at its branch in Southport last year but had to suspend the trial indefinitely after the store's wastage rate doubled.>

Moving products from glass into plastic has led to some more straightforward conclusions. Allied Domecq, the spirits brand, expects to cut the size of its transport fleet by up to 55 per cent in the US by swapping glass bottles for PET. Wolf Blass, the Australian wine label, now sells in plastic bottles in the UK after Waste and Resources Action Programme (Wrap), the government-funded NGO that advises on waste reduction, found that its PET bottles had a smaller carbon footprint than recycled glass equivalents.

Using more plastic is one of the easiest ways to reduce packaging – "I could cut 25 per cent tomorrow if I moved everything into plastic film," says Roberts at M&S – and our reluctance to see this happen shows how misguided our gut instincts can be. During my interview with Roberts, she showed me a chart from recent M&S customer research [see page 19]. Tonnage of packaging for various goods runs along the X axis and customer concerns over packaging runs along the Y axis. If public perceptions were accurate, then the heavily packaged items would appear in the top right corner of the graph with high values for both weight and concern. Instead, it was chaos. There was almost no concern about wine, which is the most heavily packaged of all, while organic food, the least packaged item, was top of the worry scale. That customers can be so wrong is unnerving for packagers, not least because customers and voters are one and the same and the industry risks having both the market and populist policies turn against it. The chancellor's recent threat to place a charge on plastic bags – described to me as "just bullshit" by one industry analyst – is seen as a worrying sign. "There's a moral question here," said Searle, of the Packaging Federation. "Are consumers always right? Are they well-informed enough to guide these decisions? Is listening to them actually the right thing to do?"

IF, SLIGHTLY CHASTENED, WE ACCEPT THAT PLASTIC PACKAGING IS EXCELLENT at what it does, then the next question to ask is how sustainable it is. One way to think about sustainability is outlined in the government's *Waste Strategy for England 2007* and is known as "one world living". The idea is that if the rest of the world lived as Europe does, then it would need three planets to sustain it. In order to consume our rightful share of the world's resources, we must think in terms of radical reductions of our ecological footprint. More pressing perhaps, in the case of plastic, is that it is made from oil, which is going to run out. And more pressing still is that landfill in the UK – the squashy afterlife for 75 per cent of our plastic waste – is going to overflow, depending on where you live, between four and 11 years from now. We need to use our plastic more than once. It is in tracing the loop of plastic recycling in this country (or, more accurately, trying to) that the awkward features of the stuff re-emerge. But once again, the role of the consumer is ambiguous.

Plastic waste is now collected for recycling from about half the households in the UK. It goes to a privately run MRF (pronounced "murf"), or materials recovery facility, where it is sorted from paper, cardboard, steel and aluminium, crushed into giant bales and sold on for a second life. I went to a MRF run by Veolia, Britain's largest waste management company, in Alton, Hampshire, to see this happen. "This is recycling in the raw," said John Collis, the Veolia manager who oversaw the building of the plant. It handles 85,000 tonnes of waste a year and is one of about 20 of its kind in the country. We watched conveyor belts zipping up and down, tipping acres of paper into black-and-white heaps while workers, in sealed huts perched on gangways, pulled impurities from the stream. Air hissed from the sorting machines, trucks beeped as they reversed and cans leapt like jumping beans to hug a large magnet.

(Above) Veolia's John Collis deals with "recycling in the raw". The company's site in Alton (right) handles 85,000 tonnes of rubbish each year

PHOTOGRAPHS: BEN STANSALL

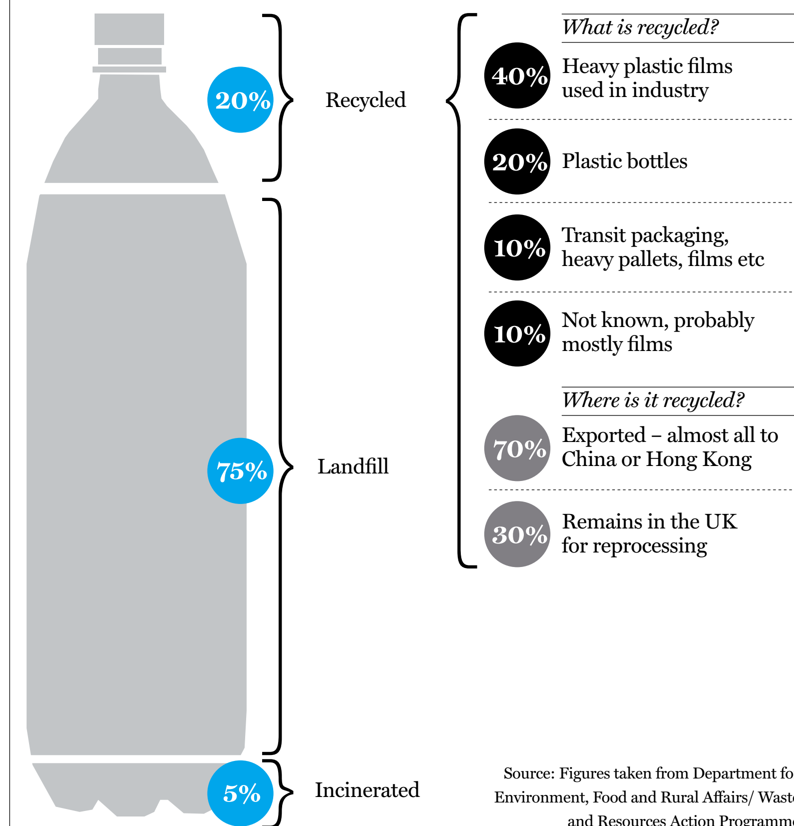
Plastic packaging, however, is harder to discern. This is again because of that essential quality: it doesn't weigh very much. One of the basic ironies of plastic packaging is that the same qualities – diversity and lightness – that make it perfect for moving and protecting goods end up working against its recycling. While manufacturers, retailers and logistics companies constantly battle to take another 10 per cent off the weight of plastic packaging, recyclers and waste companies are forever trying to aggregate and crush together enough plastic leftovers to make it economically and environmentally viable to reprocess them. This is the topsy-turvy world inhabited by people such as Bernard Chase, a recycler from Yorkshire, who

If the rest of the world lived as Europe does, it would need three planets to sustain it. To consume our rightful share of resources, we must think in terms of radical reductions

Plastic: the facts, figures and false perceptions

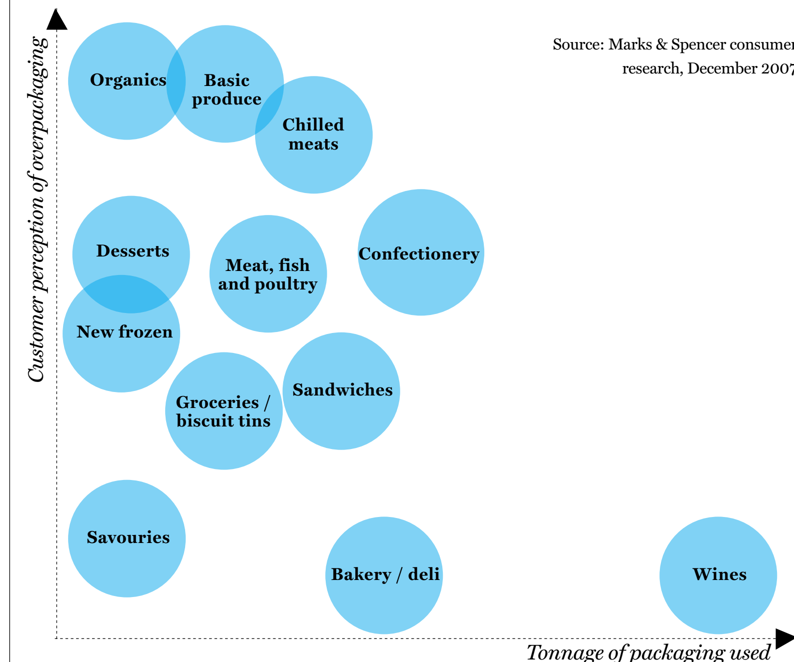
Where does our plastic waste go?

All types of plastic are recyclable, although the methods of doing so vary: there are six types commonly used to package household products.



Consumer perceptions of packaging

Recent research by Marks & Spencer shows that consumer perceptions of overpackaging are often incorrect. For example, customers showed little concern about wine, which is the most heavily packaged product researched.



What about biodegradable packaging?

The world's first plastics were made from non-oil sources. John Osborn, an English craftsman working in Amsterdam, is credited with identifying the thermoplastic qualities of horn as early as the 1620s. Cellulose, the most abundant organic compound on earth, is the main ingredient in cellophane, which was first used in Switzerland after its invention there in 1908. So why not return to biodegradable plastics?

Research into environmentally friendly, renewable polymers has been under way since the late 1980s. Polylactic acid (PLA) and other starch-based polymers from sugar cane, potatoes, corn and wheat have emerged as the likeliest packaging materials, and worldwide renewable polymer production increased from 20,000 tonnes a year in 1996 to nearly 400,000 tonnes in 2006.

The National Non-Food Crops Centre, in York, which co-ordinates British research into renewable polymers, has forecast that biodegradable plastics could make up 10 per cent of the world's $1,600bn polymer industry by 2020. Sainsbury's and The Co-op are committed to using biodegradable plastics, but Asda has decided not to after finding that only 5 per cent of UK households have compost heaps. And Innocent, the fruit drinks company, introduced bottles made from corn starch last year but stopped the trial because of confusion over how best to dispose of them.

But the real problem comes when biodegradable plastics are put in the recycling bin: they are nearly impossible to tell apart from oil-based plastics and can contaminate the recyclate, making it unusable. "It's bloody difficult," says Francis Jackson, of Closed Loop Recycling, which will be Britain's first recycler of food-grade quality PET when it opens in June. "People with the best intentions can actually be working in a counterproductive way."

finds it more rational to import used PET bottles from Belgium rather than send his lorries to pick up poorly sorted plastic waste two counties away.

Complexity doesn't help either. According to Wrap, there are 27 different polymers used in plastic packaging in the UK, often several in a single product. A shrink-wrapped side of beef, for instance, is typically protected by at least four layers of different films, including nylon and ethylene-vinyl alcohol copolymer (EVOH), a substitute for PVC. The energy and cost needed to separate every piece of used plastic packaging and then break it down is dizzying. "It just isn't worth doing," says Paul Bettison, chairman of the environment board of the Local Government Association (LGA), which represents the recycling efforts of the 410 local authorities in England and Wales. The result is that the UK collects only two kinds of used plastic packaging in any meaningful quantity: bottles and tough, low-density films used by industry. This is because they are normally made from a single polymer and are both relatively heavy. By combing for those two products alone, Britain is expected to meet its 2008 plastic recycling target of 22.5 per cent by weight, laid down in the EU packaging directive. Not that much of the physical reprocessing actually takes place in this country. The majority – as much as 70 per cent, between 300,000 and 400,000 tonnes – is recycled in China, where strong demand for raw plastic materials and the availability of cheap labour to sort the goods has caused domestic British reprocessing to decline 20 per cent in the past three years.

As for the rest of the UK's discarded "mixed plastics", no one can agree what to do with them. The plastics and packaging industry argue for incineration. Peter Davis, of the British Plastics Federation, suggests that London alone should have eight "energy from waste" plants, instead of two today, and that we should learn from Europe, where France, Denmark and the Netherlands all burn about 80 per cent of their plastic waste and so reclaim the energy from its hydrocarbons.

"You haven't seen a plastic factory on fire, I have," Dick Searle tells me. "It was unbelievable, you could see the flames from 30 miles away, the calorific content is just amazing." Wrap, the government-backed NGO, will present its findings on how best to deal with mixed plastics in a report later this year.

SO WHERE DOES THAT LEAVE US? WHAT SHOULD WE BE CAMPAIGNING FOR? More plastic packaging *and* more recycling? It's hard to tell. "It's like putting a man on Mars," says Bettison, at the LGA. "The nature of the beast is that the answer this year will be different to the answer we'll have in a year's time." But the right answer is important because consumer attitudes, whether in the form of irrational loathing of plastic packaging or strong demands for recycled plastics, have the potential both to encourage or to obstruct a more sustainable relationship with our wrappings.

Steve Kelsey, a packaging designer who has worked with plastic for nearly 30 years and is a creative director of PI Global, the firm next door to the Museum of Brands, in Notting Hill, finds the debate over plastic packaging frustrating. "Everyone is focusing on packaging because packaging is symbolic of what people perceive to be wrong about our civilisation and the impact it is having on the natural environment," he says. Kelsey argues that the hunger to do something quickly – to take the films off cucumbers, or nudge up the recycling rate by a percentage point or two – is diverting effort away from more difficult questions about how you truly alter supply chains, regulate the number of polymers or make manufacturers responsible for the disassembly as well as the construction of their packaging.

Rather than reduce the weight of a plastic bottle by a further 10 per cent, we should be thinking about in-store vending and "closed loops", where packaging is recycled into more packaging, rather than endlessly degraded into lower-quality materials for other uses. It is changes like this that make a real difference. Helene Roberts told me that greatest reduction in M&S's packaging came in the mid-1980s, when the company switched to re-usable plastic crates and stopped consuming 62,000 tonnes of cardboard boxes every year, the equivalent of 80 per cent of its total current packaging.

PHOTOGRAPHS: CHARLIE BIBBY

Steve Kelsey (above), who designs packaging (left) and tests new plastic technologies (right): "The reality is, we just don't understand what we should do right now"

"The reality is, we just don't understand what we should do right now," says Kelsey. "We need people to understand that the common-sense approach has led us to this problem in the first place, and common sense is not going to get us out of it. You need to put common sense down and look at the facts and the overall strategies that are going to get us there. They are not obvious. They are not immediate. Unfortunately you can't summarise them in a soundbite to use in parliament or on TV. It doesn't work."

And that is why plastic packaging is important, and why it might provide a way of thinking about broader questions of sustainability. Because it is so good at what it does, we must either grapple with the entire system in which it operates or carry on as we are. To target plastic on its own is to evade the complexity of the issues. Is our eagerness to demonise an easy target proof that we are incapable of the systemic change that is required?

"Plastics as a lightweight food wrapper is now built in, structured in, as the logical thing," Lang, the sustainability commissioner, had told me. "Does that make it an ecologically or environmentally sound system of packaging? No... It seems to make sense, but it only makes sense if you have a structure such as we have. An environmentally driven packaging system would not look like what we have." Dick Searle – Mr Packaging – put the challenge another way. "The amount of packaging we have is a reflection of the life we lead. That's the fundamental issue. And if you want to make a major change to that, then you can change your life habits and you can try and get other people to change theirs. But I'm sorry, that ain't going to happen." ■

"Everyone is focusing on packaging because packaging is symbolic of what people perceive as wrong about our civilisation"

I gave up plastic for Lent

By Nikki Tait

The low point came in a Brussels supermarket. As I tried to stuff assorted groceries into a handbag, while simultaneously punching in a debit-card code, my mobile rang. Distracted, I didn't notice that the helpful cashier was starting to pile my groceries into a plastic shopping bag. "*Non, non,*" I screeched, grabbing the goods back. Most slipped to the floor. A jar of honey rolled the length of the shop. The queue of shoppers watched it in resentful silence.

Here we were only four days into my efforts to give up plastic for Lent, and already I was struggling. The idea of a plastic fast had been conceived a year earlier, when I'd headed to a West Cork beach to walk off Easter's chocolate excesses. Normally, Long Strand is a crescent of sand, rocks, and grass-covered dunes. On this occasion, it was a plastic cemetery. Not just a few bits of twine or the odd oil drum. Heavy storms had tossed several tonnes of garbage up into the dunes, making it impossible to put one foot in front of the other without treading on debris. On closer inspection, it was nearly all plastic – from the packets of nappies to the bleach bottles and torn sheeting.

So when Ash Wednesday came round in February, the pressure was on. I'd decided that simplicity was key – and that the task would be to avoid buying anything made using plastic, in whole or part. This would apply to the goods themselves, but also to any packaging that came with them.

The approach was plainly unscientific; it didn't allow for biodegradable products, for example. Its ecological benefit was also questionable. I'd still be using existing plastic products and, in truth, Brussels offers a fairly good recycling programme. But at least I wouldn't be adding to the environmental problem.

The first lesson was how difficult it was to live up to the objective for 40 hours, let alone 40 days. Just a few days in, household necessities began to run out – and the problems started. Coffee granules, I realised, came in nice glass jars, but the lids were plastic. Packets of coffee grounds were invariably coated in a plastic wrapping. Milk wasn't much better. I'd decided to exempt Tetra Pak, but most of the containers had plastic spouts attached. There wasn't a milk bottle in sight.

As for water, I'd imagined I'd upgrade from my regular brands, to the fancier glass bottles of San Pellegrino or Perrier. But, in Brussels at least, both of those companies seem to have abandoned their old-style glass packaging.

My first instinct was to find ways round the hurdles. I bought mini-packets of milk – too small to warrant spouts – and tried a glass bottle of sickeningly sweet "café crème". Tinned soup and canned vegetables suddenly started to feature on the evening menu, since the shops' fresh offerings invariably came shrink-wrapped.

Time and again, plastic would insidiously appear. Sliced ham, apparently wrapped in paper, turned out to be sitting on a plastic tray. Coffee bags came in a paper box – which also contained a plastic filter. The biggest disappointment was Häagen-Dazs ice-cream. I spotted some small cardboard pots in the supermarket, but when I opened one, I discovered it contained a dainty plastic spoon.

The quality of Brussels' tap water is reputedly high. Even so, I started boiling and then chilling it, and invested in an earthenware coffee jug and paper filters. At lunch, the usual plastic-wrapped sandwiches from the nearby deli were sacrificed for slices of Belgium cheesecake which could be taken away in paper trays and bags.

Feeling embarrassingly obsessive, I even secreted some metal cutlery into the office and then shooed away subsequent plastic offerings. Even so, during >

the first week, only two days were entirely plastic-free. A sterner attitude was needed. In London, buying flowers for a friend, I opted for a tub of tulips instead. As the greengrocer began to add a plastic wrapping, I took a stand: "No thanks – I've given up plastic for Lent."

He waved a crumpled Tesco bag at me. "Would you like to put them in this instead?"

Back in Brussels, a colleague taught me the phrase: *"J'ai renoncé au plastique pendant la carême."* But then I remembered the honey pot saga at the supermarket and decided further embarrassments were best avoided. The new line went unused.

It took about a fortnight before the second lesson kicked in: that plastic packaging is closely tied to convenience shopping, and that old-fashioned establishments were more likely to be helpful than modern chains. The same went for the products themselves: it was almost impossible to buy anything for a computer or mobile phone which didn't involve plastic, but books, art supplies and music material posed far fewer problems.

This epiphany came when the dishcloths ran out. Vainly, I scanned the supermarket shelves for anything – cloth or sponge – that didn't come in a plastic wrapping. Then, one morning, I came across a hardware shop, stuffed with dusty implements and metal bric-a-brac. Sitting in the corner was a pile of unwrapped cloths. I bought the lot.

The same lesson applied back in London. Desperate for a midday sandwich near Archway station, I went into an old-style "greasy spoon". The cheese bap and cappuccino came on china, with a metal knife and spoon. Popping into a Starbucks near St Paul's later that day, I spurned the plastic-wrapped sandwiches, and went instead for a piece of cake – but was stymied by the plastic fork.

In Brussels, I discovered a coffee shop which still grinds beans on the premises and puts the result in paper bags. Brussels' street markets also came to the rescue – one enthusiastic owner of a quiche stand not only wrapped his products in paper, but then used this covering to write out elaborate cooking instructions in pencil.

But just when the grocery problem seemed to be licked, my eyeliner crisis kicked in. The Body Shop couldn't help with my declining supplies; neither could Brussels' largest department store. Frustrated, I rustled through a drawer of exhausted products which I'd clung on to. Eventually I found a container that was only half-used and eked out the contents over the next four weeks. From then on, lesson three – thrift – applied.

There were plenty of other challenges. A lady at the local cleaners looked on with horror as I declined plastic wrapping, and took her perfectly pressed clothes out into a wet Brussels morning. Store detectives hovered in a museum shop as I rifled through its stock looking for boxed, not shrink-wrapped, note cards. A friend accepted an IOU instead of CDs as a birthday present.

Only occasionally were there surprises that made my life easier. The best came when the same local supermarket started to stock yoghurt in small, brown earthenware pots which could be washed out and reused. Miraculously, the same Danone products even appeared on Eurostar.

Finally, Easter began to loom. I looked longingly at the displays of plastic-wrapped eggs – but went instead to a chocolate shop on the Rue Bailli. There, you can pick a cardboard box, have it filled to order and then elaborately wrapped. The result was sophisticated and delicious. But it wasn't quite the same.

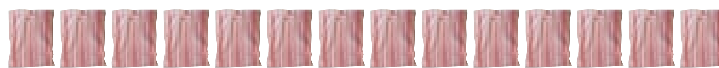
What, in the end, was achieved? Theologically, probably not much: giving up a convenience isn't quite the same thing as the denial of pleasure, although almsgiving – something that benefits the community at large – was part of the old Lenten tradition. But the insight into just how ubiquitous plastic has become was valuable – and some of the changed habits may persist a lot longer than waistline gains from Lenten chocolate deprivation.

In fairness, I should admit to very happily replenishing some of my much-missed items, such as bath oil, once Easter was over. Among these purchases were recycling bags, which in Brussels are standardised across the city and come in different colours for different contents. They are, of course, made of plastic.

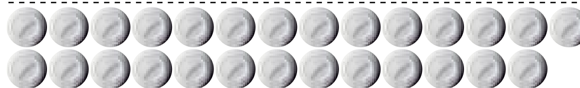
40 days of plastic consumption

What if, rather than give up plastic for Lent, you hoarded it? I knew the bottles would add up, and the yoghurt pots (though they get re-used), but my coffee-lid, cutlery and water-cup turnover was scandalous. *Rose Jacobs*

Plastic bottles | **19**



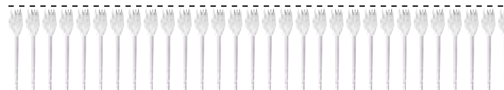
Carrier bags | **14**



Coffee-cup lids | **27**

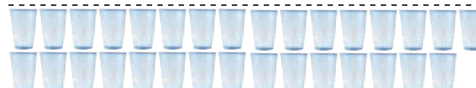
Contact-lens cases | **2**

Takeaway containers | **7**



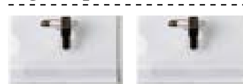
Cutlery | **30**

Fresh-food containers | **7**



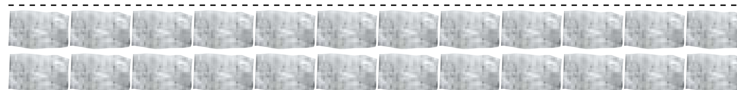
Water cups | **31**

Yoghurt pots | **9**



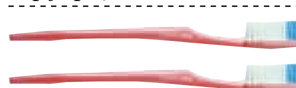
Name tags | **2**

Newspaper wrappers | **8**

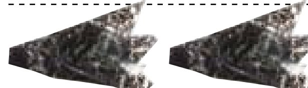


Miscellaneous bags – mostly food wrappers | **24**

Flip-flops | **2**



Toothbrushes | **2**



Cut-flowers wrapping | **2**

Miscellaneous | **9**