

## Later On

“For ten years Caesar ruled with an iron hand. Then with a wooden foot, and finally with a piece of string.” - Spike Milligan

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### Cotton: definitely *not* a “green” fabric

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**This is a surprise.** I thought cotton was environmentally good, but it’s actually bad. For an environmentally good material, consider polyester:

The famously fickle fashion industry wastes resources like there’s no tomorrow, a point that is not lost on fashion designer **Rebecca Earley**, who has embraced the green movement by creating clothes that are less wasteful. She told **Lucy Middleton** that it’s high time other designers developed a more responsible attitude to the world’s resources

#### **What’s wrong with “normal” clothing?**

The vast amounts of water, energy and toxic chemicals that are used in their production. Take cotton. Everyone thinks it’s the good guy. Yet cotton cultivation accounts for around 10 per cent of all pesticides and 20 per cent of all insecticides used in agriculture. And it’s not just the manufacture of clothing that’s environmentally unfriendly; it’s the upkeep and disposal of clothes too.

#### **What’s the problem with pesticides?**

There’s an incident that sticks in my mind in which a farmer in Nallou, Benin, went home to his family one evening in August 2000 having treated his cotton field with the pesticide endosulfan. Before going in, he put his clothes on the roof of his tin house, out of reach of his young children. During the night it rained and the chemicals in his clothes were washed into the family water butt. The next morning all four children drank from the butt and died.

Cotton farmers experience everything from rashes and blindness to death. The pesticides they use are believed to cause between 20,000 and 40,000 deaths each year, mostly as a result of accidental poisoning and mostly in rural communities in developing countries. The Pesticides Action Network UK has documented 67 deaths in one cotton-growing region of Benin in a single growing season. Many farmers can’t read the precautions and don’t wear protective clothing. They get completely covered in these chemicals. That’s why we campaign for organic cotton that is grown without pesticides.

#### **How does cotton farming affect water resources?**

Cotton farming is incredibly water intensive. It’s needed not only for growing but for processing and dyeing. So much water is needed that it’s often diverted away from communities. There’s a photograph that is part of the Earth from the Air series by Yann Arthus Bertrand of a ship stranded in what used to be the Aral Sea between Uzbekistan and Kazakhstan. The Aral Sea has lost three-quarters of its water as a result of the Soviet Union diverting rivers to help irrigate cotton farms in central Asia. Nearly 60,000 fishermen are thought to have lost their livelihoods when the fish disappeared along with the water.

#### **What about washing cotton clothes?**

Laundering is energy consuming and accounts for 85 per cent of the energy requirement of a garment. Cotton

requires way more energy than say polyester because it is washed at higher temperatures, takes longer to dry and needs ironing. We think of it as cheap and natural but it is neither.

### **How did you become interested in eco-fashion?**

There is something so transient about producing fashion clothes. I couldn't bear the idea that I was putting so much time and effort into something that would be gone in just a few months. I suppose it was a vanity thing. You just want your work to be valued for longer. It was that thought that led me to ask how I can make things that last longer.

Being green is not in the psyche of average clothes designers at all. They'll avoid thinking green if they can because they think it will restrict their design. Ultimately designers are egotistical creatures. They want to be creative and why not? That's what the whole discipline is about.

But what we are doing here at Chelsea is teaching students how to incorporate environmental thinking into design.

In 1997, 7 per cent of the year group were interested in green issues, and now it's more like 68 per cent. But I still don't think there are enough designers out there designing good things that are reasonably priced, trendy, attractive and durable.

### **How does your work help?**

I investigate the role the designer can play in reducing the environmental impact of a garment. It's about the materials that go into the product, how long the product will last, how it will be used and washed, how it will be disposed of, and so on.

### **What strategies do you use for minimising the environmental impact of a garment?**

There are many - some well known. We can use organic materials; we can reduce the air miles needed to transport the product; and we can consider "emotionally durable" design - making products that people want to keep. We can also give garments lots of different lives. For example, by cutting and mounting a polyester shirt, it might become a picture hanging on the wall. Or by melting and remodelling the polyester, it could become a necklace. You can also restrict your colours - turquoise is absolutely out because using it releases copper compounds into the environment. As are fluorescent colours.

We also consider "upcycling", which involves taking used materials and increasing their value. For example, by taking an old shirt that someone won't wear just because they've dropped a tiny bit of balsamic vinegar on it, printing over the top of it and perhaps cutting into it to make it fit with current trends. It's very quick and easy. I can upcycle a worn-out ordinary shirt into a designer handprinted B.Earley one. We believe that through this kind of recycling we can improve and produce very high-end products that are fashionable and desirable.

### **How can you reduce the amount of washing a garment requires?**

By designing clothes that don't have to be washed as often. That can mean anything from printing or embellishing the areas that are likely to stain - for example the cuff or the chest - to designing lower arm holes and low-cut fronts to avoid food or sweat stains.

### **Why is polyester interesting for eco-designers?**

Polyester is a valuable plastic that is 100 per cent recyclable and yet it regularly ends up in landfills. It's crazy. Bottles can be made into shirts and the shirts can be shredded, melted, extruded and woven again. For example, I have a fleece made from recycled Evian water bottles. You don't lose any quality, so you can recycle it over and over again. It's got lots of potential and that's really exciting. It's also very malleable and interesting in terms of the engineering technologies you can use with it - you can laser cut it, sonic weld it, heat treat it and mould it. From a textile point of view it's phenomenal. But plastic is so cheap it's difficult to make any profit from recycling.

## What does the future hold for green clothes?

People are getting more interested. It's funny because we've been doing this for around 12 years and only now is it just beginning to take off. The past 18 months have seen a very steep rise in awareness, interest and demand for eco-fashion. Green is so the new black.

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### Profile

Rebecca Earley is associate director of the Textile Futures Research Group based at the Chelsea College of Art and Design in London, where she investigates new techniques and theoretical approaches to environmentally friendly textile design. The focus of her research is the reuse and recycling of fabrics and the reduction of chemicals and waste in small production runs. She graduated from Central St Martins College of Art and Design in London in 1994 with an award-winning "heat photogram" printing technique that produces printed textiles without polluting water and with minimal use of chemicals. Her work forms part of an exhibition called [Ever & Again: Experimental Recycled Textiles](#), which runs at the Triangle Gallery in London from 19 to 25 October.

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