

Umbrella Redesign

by Justin Parkinson in the BBC News Magazine on 15 December 2014



Umbrellas are one of the design classics of the modern world. From Mary Poppins to the Mikado to burlesque dancing routines, they feature regularly in popular culture.

They get lost. They poke people in the eye. They misbehave on windy days.

They come in many sizes and colours, but the key thing we think we know about the umbrella is that they don't change. We think the umbrella is as good as it's going to get.

The most common umbrella, featuring foldable steel ribs under the canopy, was first sold by Englishman Samuel Fox in 1852. Compact, collapsible models have been widely available since the 1930s. Lackeys carry umbrellas for heads of government and state, while British pub gardens are full of large parasols in the summer.

With the environmental impact of all the umbrellas thrown away each year in mind, UK-based designer Ayca Dundar has invented the Drop, a pop-up canopy version made from just six parts. She says it is easy to repair, meaning that when a single component breaks the whole thing does not necessarily have to be replaced.

In the last few years the Dutch company Senz has invented an umbrella which was tested to withstand winds of up to 100km/h. Designed by Gerwin Hoogendoorn, it has a lop-sided shape which means it is more aerodynamic.

The UK's Royal Society for the Prevention of Accidents does not keep figures on umbrella accidents, but it warns against using them in exposed areas during lightning storms.

This comprehension is provided free of charge by Porridge and Rice, a charity that supports community schools in the slums of Nairobi, the capital of Kenya. The Porridge and Rice website is at www.porridgeandrice.co.uk.

Umbrella Redesign

Research at Australia's Monash University in 2012 found an average of 20 umbrella-related injuries a year across 38 accident and emergency wards. There were "no recorded fatalities", but several people suffered eye injuries.

One future umbrella that might achieve this is the Air Umbrella, developed in Japan, which would have no material covering but would shoot up warm air through the handle, deflecting rain before it can hit the user's head.

Loss of umbrella control is a particular problem in windy and crowded areas. Japanese company H Concept claims to have solved the problem of them flipping inside out in the wind and breaking, by placing the metal struts on top of, rather than underneath, the canopy. This means the forces from strong winds actually work to keep it open.

The UK inventor Stephen Collier has created the helmet-shaped Rainshader (in the picture above) which has been tested to stand up to a force seven gale.

Not every radical umbrella rethink will find its way into the shops, but the global market for umbrellas is huge. China accounts for about three-quarters of it - in 2010 making some £1.53bn from the combined trade in umbrellas, walking sticks and whips.

So there is likely to be no shortage of entrepreneurial designers looking to bring their modifications to market. But what can they offer that is truly new?

1. What does the author mean by umbrellas being a design classic?
2. What is burlesque? And, what is the link with umbrellas?
3. Explain the image where umbrellas "misbehave on windy days".
4. What is a lackey and who might require one?
5. Explain the environmental impact of umbrellas and the cause.
6. Why would umbrellas be designed to withstand wind when their purpose is to keep rain off people?
7. Why might the Royal Society for the Prevention of Accidents not keep figures on umbrella accidents?
8. What is a fatality?
9. Explain how the Air Umbrella works.
10. Describe a problem with the modern umbrella.
11. How does the name 'Rainshader' show that it is a business that sells umbrellas?
12. How does the article reflect the fact that umbrellas are part of a global market?
13. How would designers benefit from redesigning the umbrella?
14. Write the first sentence in the future tense.
15. Identify 3 adverbs in the article.
16. Why is helmet-shaped hyphenated?

This comprehension is provided free of charge by Porridge and Rice, a charity that supports community schools in the slums of Nairobi, the capital of Kenya. The Porridge and Rice website is at www.porridgeandrice.co.uk.