It’s out with the old, in with the new, and back again as transport turns full circle. That’s what happens when you haven’t got a decent map, of course.

“SHAME ABOUT the bus stop right outside...” That was the sort of comment I got from visitors seeing my first flat in Hackney. A decade later the typical comment had changed instead to: “Wow, you’ve got a bus stop right outside – and it’s a Routemaster too.”

In that ten years Londoners had come back to their buses, and the classic 1950s-designed Routemaster in particular. We moved house and the Routemasters were replaced by the bendy buses, known locally as the “free buses” so easy did the multiple entrances and exits make it for fare-dodgers.

The Routemaster wasn’t perfect – it was designed before child buggies so there was nowhere to put a pushchair, for example. But like generations of Londoners I remember them fondly. So I was pleased to catch a glimpse recently of a brand new Routemaster on our old route – the 38. Our feature on p4 looks at what went into replacing such a famous London icon. It seemed the rain would never stop but events have made it a memorable summer for London. And it’s not all over yet with the Paralympics still to look forward to. On p28 Abi Grogan finds out why these games are an even better source of innovation than the Olympics of Jessica Ennis and Usain Bolt.

There’s a bit of a summertime exploration of the bus from the past to the future for energy-efficient lighting. 'The Abyss' testify – and in March he dived out about the remarkable engineering that Cameron’s other passion is deep-sea exploration, as his films ‘Titanic’ and ‘The Abyss’ testify – and in March he dived deeper into the Pacific then ever before. Find out about the remarkable engineering that went into his DeepSea Challenger and other, competing submersibles, on p86.

Caravans. Do you love them or hate them? Will you be pleased to have one behind your car as you strike out on the country roads this summer, or will you be swearing at those trundling along in front of you? Dee Birkett finds out what’s next in caravan technology and why engineers really rather like them on p38.

I’m sure E&T readers are all great map readers who never take a wrong turn, but it seems satnav users are losing the ability to read maps. Does it matter? Paper maps are on the way out, says Ed Parsons in our interview on p62, but we are entering a ‘Golden Age of Cartography’. As Google’s geospatial technologist, he’s in a great position to know – although that is a dissenting voice I can hear from the Cairngorm mountain rescuers?

Also in this issue: we talk to the director of the new film documentary ‘Revenge of the Electric Car’ on p70, and on p82 we investigate whether LEDs really offer a brilliantly bright future for energy-efficient lighting.

London has a new bus

Known simply as “the new bus for London”, the vehicle is inspired by the iconic Routemaster which was withdrawn from regular service in 2005

Windows:
Anti-glare tint

Upper deck:
Air-conditioning for year-round comfort

Conductor: Provides assistance at busy times but will not collect fares

Step-free gangway:
Eases access for mobility impaired or people with buggies

Two staircases:
Enable easier access to and from upper deck

Capacity:
97 - 40 seats on upper deck, 22 on lower deck, 28 standing

Open platform: Hop-on, hop-off service. Can be closed at quieter times when bus will be operated by driver only