Full Circle

Dr Simon Benson, the Flipflopi Project

My first Topper was 20845, a yellow decker called *Mr. Flibble*, after a character in cult 90s sci-fi comedy series *Red Dwarf*. My parents bought it for my 9th birthday, wedging the boat into our living room to surprise me that morning. The start of my sailing life, and I didn't look back.

The author sailing *Mr Flibble* at Beaver Sailing Club (I think), circa 1992

I raced Toppers through my teenage years, even winning a few things, and later I taught others to sail in Toppers as a dinghy instructor in Spain and the UK. I even got to unpack six brand-new Toppers for a sailing project in the North East of England, bringing young people into sailing who might never have had the chance otherwise.

Now I'm full circle and in the hunt for a Topper again — this time for my daughter, who caught the sailing bug this year after a trip to Greece.

I must have known by proxy that the Topper was made of recyclable plastic. My best friend Chris would joke after a bad race that he'd "melt his Topper down and turn it into a wheelie bin." I also knew the Topper was a design innovation of its time — using a new high tech injection-moulding process with polypropylene — though that didn't interest me so much as a teenager of the 1990s. Back then, the sailing world was buzzing with new technology entering the mass market: asymmetric spinnakers, skiff hull shapes, twin trapezes, racks, epoxy and carbon fibre. Boatbuilders like Topper International, Laser and RS were launching new high performance sailing boats every year – from the RS200 to the 49er. I went from a Topper to a 420 to an RS200 to a B14. Faster and more furious each time.

That excitement for design and innovation in sailing also pushed me to study naval architecture at Newcastle University. When I arrived at Newcastle I wanted to design racing yachts. But I quickly discovered the wider maritime world — ships, offshore renewable energy, lifeboats, underwater vehicles — and that's where I stayed after graduating, first working as an engineer and then back to Newcastle as a researcher and then lecturer in Naval Architecture.

So why am I telling you this? And what does it have to do with the Topper?

Because the things that inspire you when you're young often come round to influence you later, and in unexpected ways.

Through my research work at Newcastle, I got involved in several projects based in East Africa. I was lucky to run several workshops in Mombasa and Nairobi on marine manufacturing, mostly talking about big ships and trade but also thinking about small-scale fishing boats and artisanal boatbuilding.

A year later, I got a phone call out of the blue. On the other end of the line someone said, "I'm calling from a boatyard in Lamu, a tropical island on the Kenyan coast. We've built a boat out of recycled plastic, and we want to build a bigger one to sail across the Indian ocean. Can you help?"

A recycled plastic boat? I first imagined a bottle raft tied together with rope, or a small outrigger canoe. But then I looked up the name, found the Flipflopi Project, and my jaw dropped.

Not a raft, but a stylish 7 tonne sailing dhow, traditionally rigged and made entirely from recycled plastic planks and beams, all processed locally in Lamu, the same town where the boat was built and now sailed. The hull was clad in 30,000 flip-flops, remade into a patchwork matting, giving the boat its name, its striking look and a very comfortable deck for bare feet (as I was to find out later).

Flipflopi Ndogo sailing from Lamu to Zanzibar

Flipflopi Ndogo had already sailed around the Lamu Archipelago, then to Zanzibar, and later trucked overland to Lake Victoria, where it then circumnavigated the lake, stopping in many towns and villages in Uganda, Tanzania, and Kenya.

Everywhere Flipflopi docked, the team ran events, campaigns, school visits and litter picks. This was part of a large-scale campaign by Flipflopi along with many partners, highlighting the plastic crisis - one that hits places like the East African coast especially hard, where the rapidly growing plastic waste, both washed in from the ocean and added to by domestic packaging and industry, blights ecosystems, communities, and economies. The campaign demands an end to single use plastic, and that all other plastics are kept in use for as long as possible through repair, reuse, and recycling, instead of treating them as disposable. This is known as a circular economy.

Flipflopi Ndogo docked for a community event, Lake Victoria, 2019

But Flipflopi isn't just a campaign that talks the talk; it's also a practical waste management and manufacturing organisation that walks the walk. In Lamu it has created a waste management system that didn't exist before. Flipflopi collects plastic waste, but then it processes, and turns the plastic into strong lumber. This is used to create high value products – beautiful ornaments, carved furniture, civic infrastructure……and traditionally built boats. Manufacturing uses a combination of heritage techniques handed down over centuries with high technology innovations such as plastic welding. By creating durable products with high value, Flipflopi shows that plastic can be a precious material that can also be used to rejuvenate skilled crafts such as carpentry, carving and boatbuilding. Flipflopi is also a pioneer of inclusion and gender equality in an industry traditionally only open to men.

Boatbuilder Nuru, welding and sealing planks on the Flipflopi taxi dhow

For me, of course, it was the boats that drew me in. The lateen sails set surprisingly like our western style Bermudan rigs, the hulls are finely shaped, and the sailing is truly adventurous. There is even a hot racing scene in Lamu – the teams are sponsored up, the rigs get bigger, the pre-regatta training programme is intense, and they even use rack-like hiking planks to gain extra advantage on race day.

Five years and several more boatbuilding projects later and I'm working alongside an incredible team of activists, waste collectors, teachers, engineers, carpenters and administrators at Flipflopi on our next big wave.

The Flipflopi fleet: Dau La Mau canoe (foreground), taxi dhow (left), waste collection barge (centre), Ndogo (right).

Now the ambition is to build an even bigger dhow — Flipflopi Kubwa (which means "large" in Swahili, whilst Ndogo – our current flagship – is "small"). Kubwa will be around 20 metres and made from 70 tonnes of recycled plastic. It will sail a high-profile adventurous voyage across the Indian Ocean, spreading solutions for the plastic crisis and challenging governments and companies to change how we produce, use, and reuse plastic.

We've already built a prototype section and have some funding partners coming on board, although we need more. The plan is to voyage for up to two years, visiting islands across the Indian Ocean, the Middle East, India, Indonesia, and maybe even the Pacific — all regions heavily affected by plastic pollution. It's a big voyage — and it's going to make a big splash as an agent for positive change.

The first prototype section of *Flipflopi Kubwa*, proving our manufacturing methods

Through this we want to show that plastic can be part of a circular, local economy — something valuable that supports communities instead of damaging them.

And for me, that inspiration also comes full circle back to my first Topper. That recyclable little polypropylene (now polyethylene) boat that could, if needed, be melted down and turned into a wheelie bin.

That's the wonder of the Topper dinghy. It's still an innovation in the sailing world.

I'm still amazed by the continuing innovation in sailing — the lightweight composites, the hydrofoils, the high-performance racing. But the race for innovation and speed also raises wider questions. For example, what happens when a boat's life is over? What do we do with the composite hull, the carbon mast, the mylar sail?

It's not just a problem for sailing boats, but a problem across the marine world. For example, in East Africa, traditional wooden boatbuilding is in decline because of deforestation and the cost of hardwoods. Builders have turned to fibreglass and polyester — cheaper, but toxic and difficult to recycle. New boats are often built without appropriate worker safety. Old boats are then left to rot, sink, or burn on beaches.

I'm not saying we shouldn't use composites, they are wonderful, advanced materials that enable much of the innovations of our modern life. But we need to think carefully about how we use them — designing for longevity, and for what comes next.

And that's why the Topper stands out. It's strong, durable, and recyclable. We've all seen Toppers at the back of boatyards, hiding in the weeds but still perfectly restorable. The *Learn to Dream* project by ITCA World is doing exactly that — refurbishing old boats and sending them to communities where sailing isn't normally accessible.

And when a Topper finally reaches the very end of its life, it can be washed, chopped up, and remoulded into something new. Maybe a park bench. Maybe even another boat. Or maybe, just maybe, that wheelie bin.

Flipflopi Ndogo refitted with new bottom planking in 2024