

# BRIGHT SPARK

AS DESIGN DIRECTOR FOR PRODUCT-DESIGN COMPANY XYZ, **BYRON QUALLY** IS MAKING THE SUN WORK FOR HIM

## **What are the main challenges of solar-power design?**

How to store the energy once it's been absorbed, and the context in which solar energy works – the product must be able to survive where there's very harsh sunlight. There's also the need to get away from its stigma of being less effective. A product needs electricity to run, but its performance is based on the product, not on the perception of the amount of electricity.

## **Has load-shedding increased demand for solar power in SA?**

Yes, South Africans are realising the potential of the environment we live in. They are no longer looking at a single source for their energy. We're moving away from the split between people who want technology and those who are 'green', and seeing them meeting together in the middle.

## **One would think SA is well-suited to solar power...**

We're in a fantastic position! South Africa, like Arizona, has the highest rates of UV in the world. And there's a professor in Joburg, Vivian Alberts, who is doing work with solar energy that's way ahead of the rest of the world.

## **So what's the hold-up?**

Funding for research and development is a problem. In the US and UK there's much more help for people to realise their ideas. There is some support from government, and there has been a realisation that you can't only invest in the idea because then the idea just gets sold overseas. The first round is development, the second round is getting the product into the market and keeping it in the country so we can benefit from it.

## **How is product design changing in response to environmental awareness?**

There's pressure from global directives. For example, there are two laws that control whether a product can even enter the EU. The WEEE (Waste Electrical and Electronic Equipment) is concerned with how a product is going to be taken apart for recycling. The ROHS (Restriction of Hazardous Substances) directive looks at what chemicals go into a product. So, before you've even built the product you're looking at how it's going to be disposed of when people no longer want or need it. It's very exciting. South Africa has taken a big leap in this area and is innovating a lot.

## **Have you visited any countries where the use of 'green' energy has inspired you?**

A friend of mine moved to Pampilhosa da Serra in Portugal, where they have wind farms – all these windmills on the hills. We went out at 2am and sat under the windmills as they were generating electricity. It was amazing. But what really excites me is human energy. When I go to the gym down the road, the treadmills work off electricity and there are TV screens on them. In Hong Kong there's a gym where all energy is linked to the people working on the machines, so if you want to watch TV you have to run faster!

## **What solar-powered products have you been working on?**

A roller-blind where one side is a solar panel and the other side is electro-luminescent. So it stores solar energy and the window actually glows. You can 'print' the light, so people can choose the colour they want it to glow and they can even have patterns.

## **When can we get one?**

We're looking at production by the end of next year. ●