‘We have to look further’

At his farewell event Emeritus Professor Prabhu Kandachar displayed more enthusiasm, idealism and optimism than many a politician. The more complex the world becomes, the more work there will be for designers.

Jos Wassink

‘Everyone’s complaining about the crisis. You say: “These are great times for designers.”

Because designers have the potential to develop many things that meet global requirements. The crisis you refer to is a European crisis. My story isn’t about the European crisis, it’s about future global crises.’

‘What kinds of crisis do you mean?’

“There are three developments at once really. Population growth is the basis. There are now 7 billion of us. By the end of the century it’ll be somewhere between 11 and 15 billion. In other words, the world population will double this century. Much of the population growth will be in emerging economies. This combination will result in a huge rise in consumption. This can in turn lead to food crises, water crises, fuel crises, etc.”

Other people say the same, yet you remain optimistic?

“Wait a minute, I hadn’t finished. Consumption was my second point. The growth in consumption results in a tremendous growth in waste production and pollution. Our use of raw materials and natural resources for consumption purposes has an impact on our planet. We already use 1-4 times more than the Earth can produce. If everyone lived as the Americans do, we would even need five times the Earth. More consumption leads to a rising demand for raw materials. That can lead to conflicts between nations. These are challenges that designers can respond to. Rich countries pollute the environment much more than poorer countries. Rich countries should therefore reduce their consumption and, at least, reduce their carbon footprint (CC, emission per capita, ed.). What’s more, people in developing countries can forget about ever reaching the western standard of living unless they adopt the development model of in the western world.”

That’s not a message people will like then. “Not here. Not anyone. There is a little room for an increase in prosperity in poor countries, provided rich countries reduce their consumption. Because we only have the one planet between us. Unless we change our ways, in thirty, forty years’ time we will need four times the Earth. Designers play an important part in that change.”

How?

“By reducing consumption with more efficient products. Electric or lightweight cars, for instance. Behavioural change is another example. It is still in its infancy, but designers are thinking about how their products could influence behaviour.”

Can you give an example?

“Examples include travelling by bike rather than taking the car, designing energy-saving resources and, of course, improving consumer awareness. Designers used to design products and services, but now they also design infrastructures and much more. Above all, designers need to understand the problem. Then you’ll be much better able to devise a solution.”

Does the future call for a different kind of designer?

“Yes, I think it does. They will need to have had a much broader training than they have now. They’ll have to learn to think more systemically.”

Does that mean not just thinking about the product but also how it’s made, which raw materials are used, its life cycle, etc.?

“Yes, a more holistic approach. Take the United Nations Millennium Objectives for example. One of these objectives concerns maternal health, another is about children’s health. There are more than half a million pregnancy-related deaths a year. And there are still more than seven million child deaths a year. The reduction of these numbers was set as two separate objectives. Only after ten years did they realise that maternal and child mortality are so closely connected that a combined approach would be more likely to succeed. Plus, it’s not only about the health of mother and child, it’s about the health of an entire community. So you need to take a more holistic approach before you can zoom in. That’s what designers need!”

Aren’t you afraid that the current crisis will threaten the realisation of the Millennium Objectives?

“It is certainly threatened. Last June, in Rio de Janeiro, the UN looked back on the millennium conference held twenty years earlier. They were unable to make a strong statement. The US and Europe have different priorities right now.”

Yet you remain optimistic?

“I am an optimist. Being a pessimist is pointless, so I have to be an optimist. Whether I like it or not. We people always figure it out. But I’m not sure whether or not that’s always thanks to technology. There is so much more than technology. Behavioural change, for instance, something social scientists understand more about. I would like to see the universities of Leiden, Delft and Rotterdam approach these kinds of global issues collectively. It would be a golden opportunity.”

‘Unless we change our ways, in thirty, forty years’ time we will need four times the Earth’
I don’t think so.

Who is “That’s the reason for your negative feelings; it doesn’t happen here. The innovation platform is here…”

The Dutch innovation platform primarily stimulates the existing key sectors of industry. “And why is that? The Finnish insight to look abroad and translate what you see to what it could mean for your own country and industry is lacking in the Netherlands. And it is of little interest to today’s political parties. Their only concern is whether the speed limit should be 120 or 130. Those aren’t issues. Very much of what occurs outside the Netherlands affects the Netherlands so you must also look outside.”

Do you sometimes look outside? “I look outside and inside.”

You have made a case for the development of products for the 4 billion poorest in the world, the ‘base of the pyramid’. How can that work as a business model? „Nokia does just that. It can make money by producing a product that is suitable for the population there”

Nokia is successful in poor countries thanks to a telephone with different address books. “For example: People there often share a telephone, so it’s very handy if it has more than one address book. That innovation was devised after they had seen how people live and use their product. They also saw that people used the display light as a torch and then thought: we’ll incorporate LED lights. It’s not that hard. You just have to live there for a while and observe. You have to design a product for them. And at a price that is acceptable to them, then you’ll succeed.”

Is it ethical to profit from people who are poor? “I don’t think it is unethical. They are not forced to buy, are they? But there are other issues. I was involved in the development of a small and inexpensive ultrasound machine that would only cost 1,000 euros as opposed to 20,000. It had to be suitable for an illiterate village doctor to use. The doctor produces the image and transmits it to the hospital where a specialist responds with three lights: green, yellow or red. If the light is yellow or red the woman has to go to the hospital. There is one ‘but’. The screen shows whether the baby is a boy or girl. And in some countries, female foetuses are aborted. What am I to do as a design lecturer? If I design it I could save women’s lives but endanger the lives of unborn baby girls. These are ethical issues I cannot answer.”

A very difficult issue indeed. Do you want designers to produce more sustainable cradle to cradle work? “Any worthwhile developments in that direction must certainly continue.”

You are saying goodbye to TU Delft - except to your 5 PhD students. What would you like to say to future designers? “That they should continue as they are. I am also in the process of convincing my departmental director Frans Gortemaker that a successor should be appointed in my discipline. Dean Ena Voûte also thinks it’s a good idea. Fantastic challenges for designers also lie ahead in the cooperation with Leiden and Rotterdam.”

Finally: you are the epitome of someone with holistic vision. Is that due to your Indian roots? “You have a point there, but that attitude isn’t just Indian, it’s oriental. Consider Chinese acupuncture, that’s also a holistic approach. In the western model, you treat a headache with a headache pill. But you might have had a row with your partner, and a pill won’t help then.”

Who is Prabhu Kandachar

Until 1 January 2012 P.V. (Prabhu) Kandachar was Professor of Industrial Design Engineering with special emphasis on sustainable materials and production technology. Born in India, he obtained his PhD at the Indian Institute of Science in Bangalore and in 1975 came to Delft, where he worked on environmentally friendly technologies until 1980. Between 1980 and 1995 he worked at VOFER Aerospace near Amsterdam. From 1995 he worked at the Faculty of Industrial Design Engineering. In this capacity, he was passionately involved in designing for the very poorest in such countries as India, Indonesia, Honduras and Madagascar. This base-of-the-pyramid approach prompted him to contemplate the world of today and the near future with its numerous challenges. His speech ‘Renaud Design’ on 7 September 2012 focused on the role of designers in this context.