

IF WE ARE TO MEET OUR CARBON TARGETS, WE NEED TO REFURBISH A CITY THE SIZE OF CAMBRIDGE EVERY MONTH FOR THE NEXT 40 YEARS

## WHAT WOULD TAIICHI OHNO DO?

David Strong As the Japanese say, waste is futility and failure. But, in the form of overconsumption, it has also been the bedrock of our industrialised economies. Here's how we can do without it

omeone once described consumerism as buying stuff you don't need with money you don't have to impress people you don't like. So maybe it isn't so surprising that, as consumption has risen, the evidence suggests that our quality of life is declining.

Now we are told that frugality, prudence and sustainability are in. The holy grail of sustainable development is to deliver enduring economic, social and environmental benefits – but could this prove to be just as much an illusion as the pursuit of unbridled economic growth?

We are in uncharted territory. On the one hand, awareness is growing of the urgency of tackling climate change. Politicians are telling us that we must achieve an 80% reduction in carbon emissions by 2050. It's a gargantuan task. A recent report by the Economic and Social Research Council pointed out that if we are to meet our carbon targets, virtually all 24 million buildings in the UK would need to cut their carbon emissions by 40%. That means we would need to refurbish a city the size of Cambridge every month for the next 40 years.

On the other hand, those same politicians were at the G20 summit, where they tried to work out ways to restore consumer confidence and economic growth, measured by retail sales and driven by ready access to the money markets. There are clearly many powerful people with an interest in getting us back to the way things used to be.

In my view there is another way – a way to reconcile economic growth with a genuinely sustainable future. It's an approach that doesn't require political grandstanding, or endless rounds of consultation about building codes and regulations. Instead it draws on the natural capitalism movement promoted by my friend Amory Lovins at the Rocky Mountain Institute. Natural capitalism shows how it is possible to create a vital economy that uses less material and energy. Such an economy can free up resources, reduce personal taxes, increase per-capita spending on social ills (while simultaneously reducing those ills),

and begin to restore the damaged environment. To adopt such an approach in the UK would require radical political leadership. All politicians should take note of the recent Sustainable Development Commission paper on redefining prosperity.

This approach also involves tackling "muda". This is a Japanese word for which there is no English translation, but it can be interpreted as "waste" or "purposelessness". The concept was originally identified by Taiichi Ohno, the father of the Toyota Production System and a man once described as the most ferocious foe of waste human history has ever produced.

Muda sums up the whole raft of design blunders, planning inefficiencies, construction problems and disconnected thinking that besets many of our projects. So-called "green schools", where the indoor air quality is so poor that pupils fall asleep, "eco-towns" that have insufficient public transport, and even BREEAM "outstanding" offices that don't deliver a healthy or productive workplace.

One of the keys to tackling muda is simplification, and one of the ways it can be applied to buildings is through a form of eco-minimalism that takes inspiration from nature and natural systems. Thus we are working with clients who want to do more with less, using passive design and biomimicry to achieve more cost-effective and sustainable outcomes.

The best solutions are ones that are deceptively simple – "indistinguishable from magic" as Arthur C Clarke once said – and that fuse together all aspects of sustainability, including a biologically and culturally informed appreciation of what people are and what they want from their environment.

This is genuine sustainability and the creation of a new route to wellbeing that should last us much longer, and make us much happier, than rampant consumerism and unbridled growth could ever do.

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Building Magazine 8 May 2009