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IN CONVERSATION WITH

LUKE HUGHES

by Candice Lim



When he's not busy with his hands, Hughes personally lectures worldwide on sustainability and the relationship between architecture and furniture. In June this year, he was in Singapore as part of the American Hardwood Export Council conference (see page 113 for report) to speak on sustainable design, to share with the delegates his "politically incorrect point of view".

FuturArc Managing Editor Candice Lim caught up with the man who was delighted to share some of his key points with FuturArc readers here.

CL: Taking the cue from the name of your presentation, what do you reckon are some of the 'politics' behind designing sustainably?

LH: It's like the story of the Emperor's New Clothes! Let me explain:

The 'greenest' thing we can do is to produce nothing. However, that doesn't sit well with our economies' incessant desire for growth, it destroys our dreams of a creative economy and is just not going to happen. So we build with frenzy, fabricate boilers and air-conditioners with abandon, heat (or cool) our buildings using precious energy resources and then try to kid ourselves that this is somehow 'sustainable'. Have you been to Masdar? An eco-city in the middle of the desert of Abu Dhabi, which can, of course, only be reached by car—a sustainable fantasy if there ever was one. And as for that car, 75 percent of its carbon emissions in a 10-year life are tied up in the production of the car, not in its running over the same period. We would do better to make cars last 20 years, until they finally rust into a heap, than go on making new ones. So it is with furniture: the 'greenest' chair is a second-hand chair.

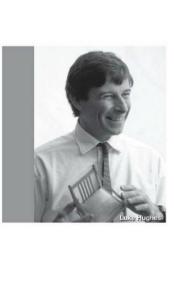
The need to resolve this paradox has become known as 'green', 'eco' or 'sustainable' design—a contradiction in terms or a marketing gimmick? There is a danger of designers sheltering behind the label to make themselves and their clients feel better.

In my view, sustainable design should not be an issue at all, not because I am a climate-change denier but because it is palpable common sense. Any thoughtful designer or architect should always consider the techniques of making, the effects of production, the social impact, the recyclability of materials, etc., not as a marketing trick but as a matter of course. It has become a moral issue. And not for the first time—even in the 19th century, artists and designers began to address the de-humanising aspects of the Industrial Revolution; it had become a political and artistic concern in the UK as early as 1850. We don't interrogate the past closely enough. In fact we are all suffering from collective amnesia.

CL: Could you define the concept of Green design from the point of view of a furniture designer?

LH: A sense of permanence makes us Green—the best thing any of us can all do is build for long life-expectancy. Our ancestors built to last, why don't we? For furniture designers, the aim should be to specify materials that self generate (like timber) or, even better, not have a negative impact on the planet, eliminate waste, minimise the use of power, respect the dignity of craftsmen, make less to higher standards, lock up the carbon, etc. Oh, and spread the word to the next generation.

CL: In your talk, you mentioned that certification is not the same as sustainability, and that it's better to get the economics right rather than rely on certification—could you elaborate on that?





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Spa at Peninsula Hotel, Hong Kong
 Spa relaxation furniture, Gleneagles Hotel

LH: Certification requires a lot of certifiers running round with clipboards, adding more cost, but no value, to the supply chain. For instance, timber: according to Greenpeace, 94 percent of tropical forest depletion is caused by poverty, population pressures and shifting agriculture and only 6 percent by forest harvesting. The best way of ensuring forest cover is maintained is to keep the value of the trees on the land higher than the value of the land when used for, say, the grazing of beet cattle or the supply of charcoal for industrial furnaces. The last thing you need is a lot of bureaucrats taking a margin on the timber supply. In any case, as we all know, bureaucrats around the world are susceptible to graft; certificates can always be bought or forged. Surely it is preferable to pay more for the trees, insulate our dwellings, design them with more thought about the use of materials, address the problems of poverty, raise the value of the land and educate the next generation.

CL: Tell us more about your design philosophy, and your philosophy behind using certain

LH: Our approach revolves around the idea that, in any quality building, the connection between architecture and furniture should be seamless, creating a sense of 'rightness' either functionally or aesthetically. For me, furniture should embellish the space, not embarrass it. The design skill lies in matching (or designing) the furniture to the architecture. Most buildings have neither function nor purpose without the furniture, yet inappropriate pieces can grossly undermine great architecture. There is a danger, in a post-industrial age, of thinking manufacturing has no place in our future. This is not so: manufacturing has just become more complex. The need to understand materials combined with the most intelligent way of using them has become ever more demanding.

Most of our projects are designed for a minimum of 50 years so they have to age gracefully—hence the use of timber. The choice of materials is critical—not just because of the structural properties (how much they flex, split, warp or twist), not just because of the aesthetic qualities (colour, grain pattern, texture, ability to take polish or reflect light), but also how they evoke memory and association, and how they age gracefully over time.

In fact, 85 percent of the materials we use are timber, the most important being European oak and the principal American hardwoods: white oak, red oak, black walnut, cherry, maple and tulipwood. The reliability of the provenance is a major reason for choosing these. The deforestation in the US during the Industrial Revolution and, particularly, during the American Civil War was nearly a catastrophe. Now the reverse is true. American hardwood stocks have doubled since 1953 and tripled since 1870, mostly through natural afforestation, rather than planting. That's a success story, not only in terms of increasing the forest cover but also in terms of locking up the carbon.

CL: Besides material, you've said that designing and making furniture sustainably also mean being sensitive to architectural settings. Could you elaborate on this point, and cite some examples?

LH: Keeping buildings relevant in a rapidly changing world is, ultimately, down to the quality and flexibility of the furniture. Modern buildings today, especially those commissioned for public use, evolve to become historic buildings tomorrow.

However, all interiors have to evolve if they are to remain relevant. This might be due to changing social patterns, development of raw materials and methods of working them, evolution of technology, and even, in ecclesiastical buildings, the reinterpretation of liturgy. The longer the building and the furniture stays relevant, the longer the carbon remains locked up. The longer the carbon remains locked up, the more we contribute to cutting down CO2 emissions. Long life equates to locked up carbon. The equation really is as simple as that.

Since 1990, I have focussed on design for public spaces (rather than residential), particularly in the educational, ecclesiastical, corporate and leisure sectors, usually for buildings with significant architectural





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3 Spa relaxation area, Mandarin Oriental London

interiors, historic or contemporary. We try to design for at least a 30- to 50-year life expectancy and sometimes for more than 100-year life expectancy. The Supreme Court Library in Edinburgh was specified for 150-year life expectancy. In fact if anything lasts that long, it will last for centuries. The University Library in Cambridge asked for a 300-year life expectancy. We have many university and religious buildings that are 700 years old or more, all kept relevant by changing the furniture.

CL: You brought up the discussion of whether (designing for) life expectancy is a problem or an opportunity—so when is it a problem and what are the challenges/difficulties that may have deterred designers/architects from doing so? Are designers making good use of such opportunities?

LHz: I gave some lectures at Temasek Polytechnic in Singapore a few years ago. When I spoke about designing furniture for a 50-year life expectancy or more, the students looked at me as though I came from outer space it is perfectly possible to design for long life if you really understand all the techniques of making, all the collective memory of craftsmanship over the centuries, all the vagaries of timber and how it behaves. The best designers are, for me, those with a making background. The problem is that there are not enough of them and, when it comes to architects especially, there is insufficient training. For example, I learned recently about one architecture course in Southeast Asia where they offer 2,490 hours of study, 28 percent on materials (especially concrete and glass) and barely any mention of wood. The same is true in Europe and the USA. The opportunity is training, training, Training. There is also an opportunity to educate clients about how they could save money by commissioning for a longer life expectancy.

CL: You've recently designed for a couple of big hotel chains in Asia. What are the main differences between designing furniture in Europe and in Asia? What are some of the challenges you've faced designing for properties in a tropical climate?

LH: Yes, we have designed for the Mandarin Oriental, the Peninsula Group and the Four Seasons Group, to name a few. One of biggest challenges is the protection of Intellectual Property! Most hotel interiors are air-conditioned to the extreme. We have also designed for a lot of embassy buildings around the world, where the furniture has to be 'tropicalised'; this usually means looking at jointing, glues, selection of timbers and resistance to termites. There is also a question of finding a voice for the designs; what works in a English context may not work in an Asian one.

CL: What is the future of Green design, both in the broad sense and in terms of furniture design?

LH: I think one of the most promising aspects is the gradual global awareness of timber as a truly sustainable material. Ten years ago, governments were more concerned about Greenpeace activists climbing up their flagpoles, unfurling banner exhorting people to stop using timber at all, than they were about sourcing timber from sustainable sources. That argument has moved on a long way. Now, there is a much greater awareness by governments, eco-warriors, the building industry and designers that there is no other material as ecologically sound as timber, as long as forest extraction schemes are respected and not abused.

The American Hardwood Export Council have actually commissioned a Life Cycle Analysis of the real environmental impact of extraction, conversion, distribution of timber, and they have now got some credible scientific data to support what was, before, only a logical hunch. I think there will be much more scientific support for this kind of thinking in future.

I really hope that much more training gets embedded into the syllabus for future architects and designers they tend to be nervous about what they don't truly understand. Knowledge dispels fear.

CL: What do you make of the rapid growth of Asia, especially China and India, and the development of Green design in the furniture industry?

LH: There is a danger of industrialised, developed nations using sustainability as a stick to beat the rest of the developing world. Both India and China are very ancient civilisations and don't need lectures from the West. Nevertheless, it would be good if they can take comfort from the massive natural afforestation over the last century in the US. That's a success story, not only in terms of increasing the forest cover but also in terms of locking up the carbon. The same kind of patterns apply to European woodlands. There has been great progress in Malaysia over the last 30 years and it is clear China is already reversing some of the ecological damage of war and politics over the last century. With regards to the furniture industry, it would be good to see higher quality and less volume. And more training—both of designers and craftsmen.

