Design for the other 90%

by DJ Huppatz

The most thought-provoking design exhibition in New York of the summer was Design for the Other 90% at the Cooper-Hewitt National Design Museum. While Design Life Now: The National Design Triennial took up the former Carnegie mansion’s interiors, curator Cynthia Smith’s Design for the Other 90% was, fittingly perhaps, situated outside in the garden.

Coming out onto the lawn from the Triennial, the first thing that struck me about Design for the Other 90% was that it wasn’t a particularly aesthetically-pleasing exhibition. It also seemed rather small, tucked away in a corner of the garden. But it’s a start. The exhibition’s premise was simple but confronting – most of what we think of as design is produced for a small fraction of the world’s population with large disposable incomes. Indeed, much of the work in the vast Triennial fell into this category of design that serves the world’s wealthiest 10%.

Meanwhile, out on the manicured lawn, Design for the Other 90% comprised 30 projects arranged in thematic sections – food, water, shelter, health and transport – projects designed to improve the basic needs of the world’s poor. And by whichever statistical means you chose, the number of people on the planet with basic needs is massive. The exhibition publicity states: “Of the world’s total population of 6.5 billion, 5.8 billion people, or 90%, have little or no access to most of the products and services many of us take for granted; in fact, nearly half do not have regular access to food, clean water, or shelter.” While such statistics are always confronting, what is also confronting is reflecting upon the absence of these issues from design journals, museums and educational institutions (at least within an American context).

The exhibition’s focus was on affordable technologies and systems that can be easily mass-produced and distributed to the poor of the under-developed world (which includes parts of the United States – post-Katrina New Orleans featured several times). Projects included distinctly low-tech and simple solutions to particular problems such as the Big Boad Load-Carrying Bicycle, a modified bicycle with an extended rear carrying platform for use in East Africa; and the Bamboo Treadle Pump, comprising two metal cylinders with pistons, attached to a bamboo framework which allows a single person to simply walk up and down to extract groundwater during the dry season in Bangladesh. Other projects were distinctly high-tech, such as the Lifestraw, a large plastic “straw” for drinking (potentially contaminated) water through, essentially a water purification device made from “High impact polystyrene (exterior), halogen-based resin, anion exchange resin, and patented activated carbon (interior)”, or the Solar-Powered Hearing Aid Battery Recharger which was developed in Botswana to allow people with hearing difficulties to indefinitely recharge their hearing aid’s batteries (the most expensive component) using solar energy. What was also striking about these objects was the fact that some of them looked used, unusual for a museum context in which design objects are usually pristine objects on pedestals below “please do not touch” signs (OK so you weren’t allowed to touch these objects either, but it was refreshing to imagine that someone had once used them).

Clients Without Cash

Importantly, Paul Polak, founder of International Development Enterprises (IED, a non-profit organization dedicated to improving the lives of the rural poor), argues in the catalogue that designers should consider the poor as clients rather than as welfare recipients. His clients, rural farmers in developing countries, are clients with very little cash, but clients who are nonetheless willing to pay for innovative design if it is affordable and if it can improve their quality of life. He also points out the many difficulties involved in designing products or systems for a rural farmer who earns less than US$2 a day – it sounds almost impossible. But some of the projects presented in the exhibition and its catalogue prove that it isn’t.

One of the most interesting solutions suggested by Polak is the creation of systems that can be replicated and expanded, such as IED’s $3 drip irrigation system, developed to increase crop yield in countries with long dry seasons. Other solutions from the exhibition included “open source” designs, whereby designers provide “blueprints” that can be used by local woodworkers or craftworkers to create, modify and even improve upon the original design. An essential part of all of these projects was collaboration with the clients – client empowerment, rather than simply the “designer knows best” approach, was also essential. However, the exhibition’s catalogue raised the twin problems for designers in the developed world
working with these clients – how to generate income and how to maintain intellectual property (IP) rights. As for the former problem, Polak points out that the statistics actually work in your favor when designing for the world’s poor – if you can come up with a genuine solution that will improve the lot of a poor rural farmer, there are hundreds of millions of potential clients out there.

Architecture for Humanity’s latest book, *Design Like You Give a Damn: Architectural Responses to Humanitarian Crises* (New York: Metropolis Books, 2006) also details the challenges of this type of design while offering some reflections on the IP problem. Their experience with the Southeast Asian Tsunami relief effort in 2004-05 revealed the complexities of negotiating with various government bureaucracies, NGOs and donors, before you even get to the clients. However, the Architecture for Humanity team seems to be both learning and growing fast, with an expanding network of “chapters” worldwide. Their aim is to establish “an open-source network of innovative solutions while still protecting the rights of the designer.” How this is to be achieved is yet to be determined, but at least someone is working on it. The “open-source” issue seems to be a key sticking point, after all, intellectual property is at the heart of cultural production in the developed world.

The exhibition played down the contemporary obsession with the designer as celebrity – the projects were defined primarily by what they do rather than who designed them. Indeed, many projects were designed collaboratively, either by teams or in collaboration with the communities who will use them (again, who controls the IP may become an issue here, at least in the wealthy West). Some of the projects were not even designed by professional or trained designers. In this context, appropriation, recycling and remixing are not subversive strategies used for creating aesthetic pleasure, evoking intellectual stimulation or even for environmental reasons, but are techniques driven by practical necessity.

**Humanitarian Design**

Of course, this approach to design is not new. There is a tradition of humanitarian design going back at least as far as the social activism of the 1960s in the US, culminating in Victor Papanek’s classic book, *Design for the Real World: Human Ecology and Social Change* (first published in 1971, reprinted several times). Or we could trace these ideas further back to the prewar projects and 1960s writings of Richard Buckminster Fuller (usually absent from the Modernist canon), or even further back to William Morris, John Ruskin and A.W.N. Pugin questioning the ethics of much mass produced 19th century design. More recently, design and its relationship to the discourse of development is well summarised by Tony Fry in Design, Development and Questions of Direction’ (in *Design Philosophy Papers* Issue 4, 2005)

It may be worth pausing briefly to consider the terms used in the exhibition and its accompanying literature: “humanitarian design”, “socially-responsible design”, “socially-engaged architecture”. Designers and architects, from at least the Modernist generation onwards, have sought to distance themselves from the mere pragmatics of shelter (the realm of engineers and builders) and simultaneously from excessive aestheticisation that might be construed as fashion. Most of the projects presented in the exhibition are certainly at the pragmatic end of this dichotomy. Does “socially-engaged architecture” imply a separate practice to “architecture”, and “humanitarian design” a separate practice to simply “design”? Furthermore, do these categories suggest these projects are pragmatic solutions rather than “culture”? Are the results “tools” and “shelter” rather than future design “icons”? Do they not belong in museums but outside them (on the lawn perhaps)? While it’s difficult to make a Domed Pit Latrine Slab Kit look glamorous, with 90,000 of them currently in operation in refugee camps in East Africa, it’s obviously a functional and successful design that deserves some attention. But somehow I can’t imagine MoMA will be rushing to grab one for their permanent collection. Following this, I couldn’t help wondering, after the recent multi-million dollar New York sale of a Jean Prouve prefab house whether collectors would be getting in early on the latest in prefabricated housing, the Global Village Shelter – why wait fifty years and undergo the difficulty of rescuing one from the jungles of Grenada when you can order one now for only $550 (less if you buy in bulk)!!

A further issue about “humanitarian design” is how it is judged. It seems we judge humanitarian design using very different terms than we judge most other design. The criteria of taste, for example, seems to be completely absent when talking about humanitarian design. The criteria for success, often imposed by the designers themselves, usually focuses on practical application, mass-producability, potential for mass distribution, but above all, affordability. An example is the photogenic Q Drum, designed by South Africans PJ and JPS Hendrise. The product involves a simple but effective method of transporting water by pulling it along in a large, donut-shaped plastic container rather than carrying it in bulky containers (typically carried on the heads of African women).
But designer Pieter Hendrikse writes in the catalogue: “Although every effort has been made to keep the price of the Q Drum as low as possible, it is still unaffordable to most people - those who need it cannot afford it, and those who can don’t need it.” Does that mean the design should be considered a “failure”? And, turning back to design for the 10% for a moment: if we were to apply the same criteria to the hundreds of projects presented in the vast Triennial, Design Life Now, how many of them would be “failures”?

Thinking back to the history of Modernism in design (see my recent blog entry), I wonder the extent to which Modernism really “transformed our world” – whose world? Design for the Other 90% takes design out of its contemporary safety zone of aesthetic and technological fetishism and into the broader global context, at the same time reiterating the idea of design as a type of problem solving. Global poverty is a big problem, and of course design’s contribution to any kind of solutions will be small. Beyond the overwhelming statistics, we need to understand the history of colonialism that created the underdeveloped world of the 21st century, as well as the impact of more recent globalization that keeps it underdeveloped. What role does design play in these histories?

Some of the solutions offered in Design for the Other 90% seem specifically modelled on American lifestyles, values and ideas of “freedom”. The vision of the “other” 90% is the same as for “we” 10% and the design model is posed as a question along the lines of “how can we help them achieve our standard of living?” This coincides with a broad consensus of support in America and Europe for intervention into the developing world with the assumption that they want to be just like us and a model of development based on integrating indigenous communities into the regime of global capitalism.

The One Laptop Per Child project, for example, is a vision to create and distribute a $100 laptop, “to bring learning, information and communication to children in developing countries.” (catalogue, page 111). Beyond the questionable first assumption that the computer is an educational tool, founder Nicholas Negroponte, in a catalogue interview, states: “Children need to make things, communicate with other children, and explore the world. They are not little office workers. We have no interest in kids learning so-called IT.” (Interview with Nicholas Negroponte of MIT’s Media Lab, founder of One Laptop Per Child, catalogue p.41). It seems the idea here is that the computer is for the consumption of “information” rather than a productive machine to program, thus re-creating virtual worlds. A recent Reuters Africa report related a story in which Nigerian schoolchildren who received these laptops were caught using them to surf the internet for porn (Reuter Africa, 19 July 2007) – indeed an “exploration of the world”!

Following this “just like us” model, the IED examples outlined above seem to be based along similar thinking. Polak presents a design system which encourages the creation of a capitalist culture of private entrepreneurs (that may or may not coincide with indigenous cultures). Much of this kind of development theory functions to expiate first world guilt with a global capitalist system built upon extracting wealth from poor countries and communities (and New York’s middle class are a major beneficiary of this system). However, an alternative approach might be one based on self-determination and an accompanying freedom from intervention which has less to do with design in pragmatic terms and more to do with reimagining first world cultures.

Ultimately, the issue may not be what first world designers can do to help poor starving people in Africa but in fact what role designers are to play in changing the currently unsustainable culture of the 10%. And turning around to critically address the vast consumer culture surrounding the exhibition may be the ultimate lesson of Design for the Other 90%. When a celebrity designer such as Karim Rashid, for example, states that he “wants to change the world”, the question we should be asking is whose world? (see Karim Rashid, I Want to Change the World New York: Universe, 2001) Or, in response to his more recent challenge, Design Your Self: Rethinking the Way You Live, Love, Work, and Play (New York: Regan Books, 2006), isn’t it time we got beyond simply thinking about ourselves?

This piece originally appeared as a blog entry on DJ Huppatz’s blog, Critical Cities. All photos by D.J. Huppatz

For further discussion also see ‘Humanitarian architecture: building change?’ by Abby Mellick Lopes and Gaurang Desai in this issue of Design Philosophy Politics - ed.