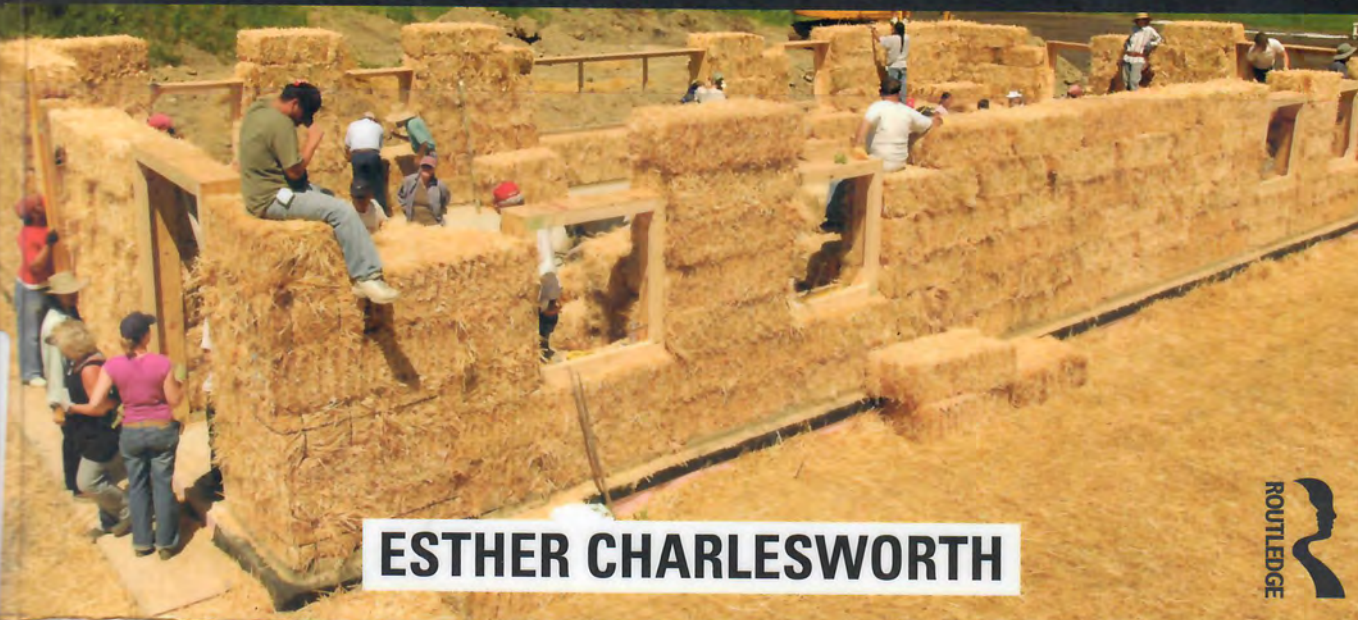




# HUMANITARIAN ARCHITECTURE

15 STORIES OF ARCHITECTS WORKING AFTER DISASTER



**ESTHER CHARLESWORTH**

ROUTLEDGE



△  
Temporary housing, Croix-des-Bouquets,  
Haiti (photo: Esther Charlesworth).



# INTRODUCTION

## A world of disasters: the rise and rise of humanitarian architecture

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When on field research in New Orleans for this book during 2012, I was trying to buy a cell phone from a vendor called Miguel in a bulk phone shop in the downtown area. Miguel questioned why I was in New Orleans and, when I mentioned my next destination was Haiti, he commented, 'That place, Haiti, had a terrible disaster. Why on earth would you want to go there?' The memory of his own city under water, without food and shelter, only seven years earlier, had clearly faded. So though the catastrophic disasters of New Orleans and Port-au-Prince were once front-page news, the processes of rebuilding the social and physical capital of these cities quickly ceased to be newsworthy for either the mainstream – or the design – media.

Why should architects be involved in humanitarian work and the projects needed to deal with post-disaster emergencies and recovery? How can they contribute effectively to the long-term reconstruction processes needed to ensure the rebuilding of vulnerable communities?

This book explores these questions through the emerging movement of 'humanitarian architecture' by profiling the personal and professional journeys of fifteen architects engaged in working after natural disasters. From Australia, Haiti, India, Japan, Pakistan, Sri Lanka, Switzerland, Taiwan, Thailand and the USA, we hear narratives of the immense opportunities, challenges and frustrations of working in an emergency mode of humanitarian practice framed by uncertainty and ill-defined or non-existent project briefs. The architects interviewed for this book are defined and united by a collective belief that the processes of spatial problem-solving, and viewing the design management of projects as an iterative process, can contribute in a significant way to the challenges of rebuilding a city and its community following a natural disaster. Listening to these professionals, who have committed their careers to working in humanitarian and development fields, also reveals the ways in which many current models of architectural education and practice marginalize this field of

design work into an 'alternative' box – as if it has little place in the 'true' hierarchy and DNA of the architectural profession. The time has now come to radically rethink the future role of design educators and professionals amidst such fragile times.

### Global crises

Never has the demand been so urgent for architects to respond to the design and planning challenges of rebuilding post-disaster sites and cities. In 2010, approximately 42 million people were forced to leave their homes due to natural disasters across the globe, nearly twice the number of displacements during 2009 (*Huffington Post*, 2011). Yet the number of architects and built-environment professionals equipped to deal with rebuilding in the aftermath of these floods, fires, earthquakes, typhoons and tsunamis is chronically low. Indeed, if the design of human shelter and infrastructure is a key role of architecture, then it could be said to have failed miserably, as less than 10 per cent of houses and civic infrastructure in the Western world are actually designed by architects (van Schaik, 2011); their role in post-disaster reconstruction, especially in the Global South, is significantly less again.

Along with injury and loss of life, the most serious impact of vulnerability – whether it is from poverty, natural disasters or conflict – is the deterioration and destruction of built environments. For example, the December 2004 Indian Ocean tsunami killed 200,000 people, and displaced over one million people living in destroyed coastal areas, in Sri Lanka alone. During 2005, in New

Orleans, Louisiana, Mississippi and Alabama, Hurricane Katrina killed more than 2,000 people and destroyed 275,000 homes – nearly ten times as many as in any previous natural disaster in US history. Storms in central China in May 2007 resulted in more than 1,000 deaths and the destruction of 243,000 homes. The 2010 earthquake in Haiti killed 200,000 people and left more than one million people homeless. More recently, in March 2011, a catastrophic earthquake and tsunami in Japan caused more than 20,000 deaths and damaged or destroyed over 125,000 buildings. As well as the human catastrophe of these events, the economic and ecological impact on a nation's economy after an earthquake or flood can be debilitating. For example, natural disasters in Australia, New Zealand, Japan and the USA made the first half of 2011 the costliest six-month period in the international insurance market's 323-year history (Economic and Social Commission for Asia and the Pacific and the United Nations Office for Disaster Risk Reduction, 2012; Harmeling, 2009; Munich RE, 2013; International Federation of Red Cross and Red Crescent Societies, 2012). Indeed, 2011 has been called 'the year that shook the rich' (Ferris and Petz, 2012).

However, while the emergency fields of medicine, law and engineering have been actively helping repair and rebuild devastated communities, generally there has been a marked absence of strategic spatial problem-solving and design-led solutions for longer-term recovery. This is the role of architecture and the profession is now beginning to



ask how post-disaster recovery and reconstruction (and the systemic global problems of poverty, mass migration and the future impacts of climate change) can be addressed through design for the people who most need it but who have little chance of ever affording it given the political economy of conventional architectural practice (Schneider and Till, 2009).



**Fifteen humanitarian architects  
– fifteen projects**

What if architecture also looked at its market as including the two billion people on Earth who have substandard housing, schools, health clinics, etc.? Now, not one of the two billion people actually has the assets themselves to pay even our fees, let alone a private sector architect's fees. But what

we can do is make the argument to governments, to non-profits, to institutions, that good design is worth investing in.

(Eric Cesal)

The architects profiled in this book are a small sample of built-environment professionals working globally after disaster. Architects working more broadly within the development sector (from

△ Homeless climate refugees, after cyclone Alia, Bangladesh (photo: Kadir van Lohuizen – NOOR).

slum-upgrading projects and post-conflict reconstruction to working with marginalized Indigenous communities) form a larger cohort again. Many more books could be devoted to profiling the extraordinary design projects and processes now being undertaken in these fields.

Is 'humanitarian' the most appropriate word to describe this diverse group of architects? Many of the interviewees and external commentators in this collection, including Ian Davis, Michael Murphy and Paul Pholeros, challenged my use of the 'humanitarian' label during our lengthy conversations. Their position is that all architecture is – or at least should be – humanitarian in the way it posits design solutions for a range of community groups and related problems. Murphy, for example, in his interview for this book, argues that, 'We have to remember that all architecture is political. Besides, it's not as if I'm meeting people in Haiti who are calling themselves humanitarian architects. I think they would call themselves architects working in the humanitarian sector.' It is not only architects who critique the 'humanitarian' approach. Journalist David Rieff (2003) has questioned 'the hazard of charity' in international development organizations trying to solve the complex global problems of war and poverty. Rieff also writes that 'in the absence of critical contextual analysis and hard political decisions, there can be no humanitarian solution to humanitarian problems' (Rieff, 2003).

My intention with the 'humanitarian' framing of this typology of design practice is

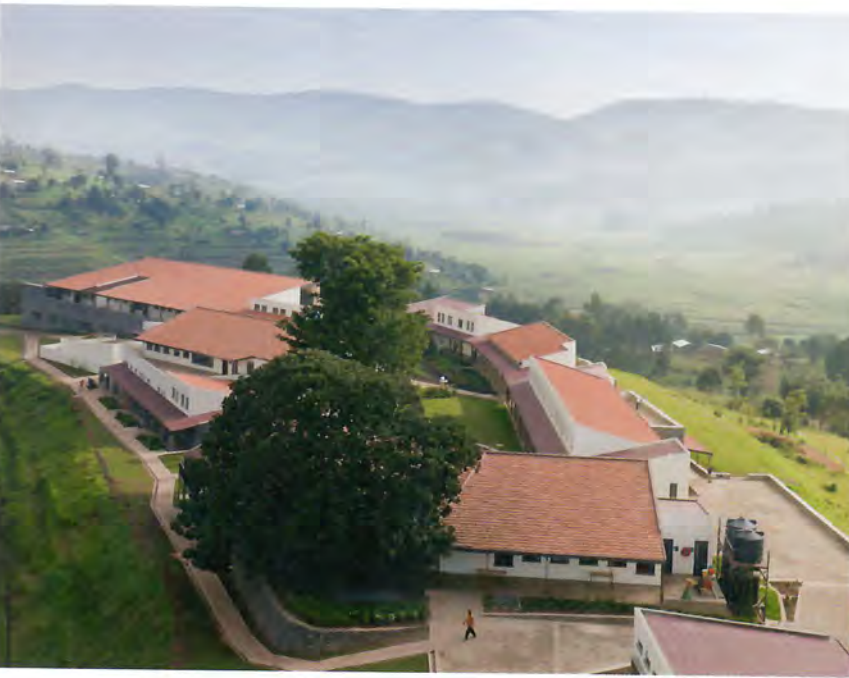
to acknowledge architectural work that has really only begun to be noticed as a movement in its own right in recent years, particularly since the Indian Ocean tsunami of 2004. Many architects and engineers have been working in this space for a much longer period, as Ian Davis' classic book *Shelter after disaster* (Davis, 1978) points out so well. However, their role in the aid and development fields has been more recognized as logistical and technical rather than part of the larger process of design thinking that might contribute to the physical and social reconstruction of devastated communities, cities and landscapes.

One of the key figures in developing a more interdisciplinary approach to disaster management was Texan engineer Fred Cuny. Cuny worked in Iraq, Bosnia and Somalia in the 1970s and 1980s before tragically disappearing in Chechnya in 1995. Cuny challenged the professional silos of the post-disaster field as he sought to discover how innovative disaster management planning and health practices could better benefit the lives of survivors. His work with his previous company, InterTect, still informs practice in the aid and development field today (PBS, 2013). The stories and lessons emerging from the fifteen interviews in this book position design as a long-term, transdisciplinary and collaborative process for rebuilding a damaged community, its local culture, environment and economy. This is in contrast to the more typical disaster response of designing shelter 'projects' that build 'houses' that are 'turned over' to residents and then left behind when the development

agency exits the scene; or what I have previously discussed as the 'design parachute' approach (Charlesworth, 2006). This parachute analogy describes the common process of fly-in-fly-out architects, donors and contractors 'dropping' into a post-disaster area with a pet project, building it quickly and then getting out to await the next disaster elsewhere. While the initial 'roof overhead' may provide temporary shelter, this approach rarely uses local construction techniques, materials or contractors to facilitate ongoing community resilience and economy.

From post-disaster projects in Gujarat to working with cardboard log temporary housing for refugee camps in Rwanda, the architects interviewed in this book illustrate ways in which the spatial sensibilities and the integrated problem-solving skills of architects can be applied after the human and natural disaster of floods, fires, hurricanes, earthquakes and typhoons. As Arup engineer Jo Da Silva comments, 'Architects can draw. Everyone else in the development sector writes' (Charlesworth, 2012). These fifteen narratives provide examples of built-environment professionals collaborating with post-disaster communities – as facilitators, collaborators and negotiators of land, space and shelter rather than as 'save the world' modernists, as often portrayed in the design media. The fifteen projects selected to illustrate the interviews involve temporary, transitional and permanent housing projects, as well as community infrastructure structures. While most of the architects profiled in the book work exclusively in the





△  
 MASS Design Group's Butaro Hospital,  
 Rwanda (photo: Iwan Baan).

post-disaster zone, several of the projects chosen (for example, the MASS Group's hospital work in Rwanda, and Paul Pholeros' sanitation programme in Nepal, cross over into the 'development' sector. The lessons from all projects, however, are similar with regards to the level of community consultation taken to develop the project and the complex web of stakeholders needed to bring these much-needed projects to fruition. As well as looking outwards to how the architectural profession can better serve society, the interviews and supporting essays also look inwards at the design profession to understand the transformative processes necessary for establishing an alternative architectural discourse and praxis.

### Reframing humanitarian architecture

**I started feeling – and subsequently expressing – that I did not want to be *that* kind of architect practising *that* type of architecture. I wanted to work in the villages for the non-rich.**

**I wanted to serve not the conventional but the alternative client, the un-served client: the villager, the slum dweller, the poor, the marginalized.**

(Kirtee Shah)

The word 'humanitarian' implies having a concern for, and wanting to help improve the welfare of, people in need. Comparable in intent with the fields of humanitarian law and medicine, the emerging field

of humanitarian architecture connotes using design skills to assist vulnerable communities, particularly after the crises of war and natural disaster. This definition sees architecture as much more than just drawing conceptual designs, resolving technical issues and building complex structures. Humanitarian architects work with a variety of donors, stakeholders and communities on site-specific projects that require strategic solutions to a wide range of issues such as the resolution of land tenure disputes, community relocation issues installing power, water and sewerage systems, and preparing masterplans for rebuilding entire cities after natural disaster. Alongside politicians, planners, construction managers, environmentalists and community leaders, architects also have a significant role to play in disaster mitigation. For example, how can we better prepare for the likely perilous impacts of climate change-related disasters through more ecologically based planning strategies, stronger building codes, flexible and climate-resilient floor plans and designs, and the testing of robust construction materials?

The rise of the humanitarian architect parallels the emergence of 'public-interest architecture'. Defined by Bryan Bell as design that seeks to address 'issues of social justice, allow individuals and communities to plan and celebrate their own lives, and serve a much larger percentage of the population than it has in the past' (Bell and Wakeford, 2008), public-interest architecture has expanded the definition of what constitutes a design problem



and a design solution, and has widened the range of audiences served by the profession. This trend is also extending the traditional roles of the architect from that of a 'design guru' or 'artistic hero' to also include roles as a 'social reformer', 'community educator/facilitator' and 'peace-maker'. Nathaniel Corum expanded on this idea in his interview:

**If you're a doctor you're hopefully able to heal someone directly, but how do you do this as an architect? Humanitarian architecture is our profession's healing gesture: a growing frontier in architecture that is increasingly inclusive.**

Architects are now to be found, for example, working alongside doctors and nurses from Médecins Sans Frontières (MSF), sanitation engineers from Engineers Without Borders

(EWB), human rights lawyers in UNHCR refugee camps, on post-conflict reconstruction projects, and in areas affected by cyclones, bushfires and earthquakes.

The business of rebuilding cities and communities after disaster has a long history of its own, however, beginning before the volcanic eruption at Pompeii in AD 79, right through to the recent 2011 earthquake and tsunami in Japan. However, the rise of the design not-for-profit sector has been a



△ Development workshop, France, post-flood housing project in Gia Lai Province, Vietnam (photo: Tuan Anh).

very recent one. While the better known Médecins Sans Frontières was established in 1971, RedR in 1980, and EWB in 1990, it has only been really in the last decade that we have seen the rise and recognition of agencies such as Architecture for Humanity (AFH), Article 25, Architects Without Frontiers and its global network Architectes Sans Frontières (ASF), Architects for Peace, and Emergency Architects (EA). While these design agencies differ in their geographic and organizational modes, all share a common goal of working with vulnerable communities to ensure a long-term and sustainable reconstruction process that contributes to rebuilding destroyed housing, villages, cities and livelihoods.

### **Creating more harm than good?**

Many writers and architects have questioned the role, motives and effectiveness of architects in rebuilding after disasters. It cannot be automatically assumed that the architectural discipline, working in its traditional mode of 'meet client – draw up design scheme – get necessary approvals – get project built – and then hopefully get it published and awarded' will be able to deal with the complex challenges that the post-disaster scene presents. Even Samuel Mockbee's seductive mantra of 'proceed and be bold' (Dean and Hursley, 2005) implies that a design intervention is the *right* solution to reducing social marginalization or fixing poverty. Working in the emergency setting after an earthquake, storm or tsunami often includes tackling a myriad of seemingly unsolvable challenges, as evidenced through the fifteen interviews in this book. The challenges include:

not knowing quite who the client is (the affected community? The donor? The reconstruction authority?); being unsure of what sort of project is actually needed first (temporary housing? Water and sanitation? Community infrastructure?); and how to decide the most appropriate processes for ensuring these projects actually lead to some level of livelihood reconstruction. Without employment or some semblance of hope for the future, the prospects for many survivors of disasters can seem very bleak; simply providing temporary housing solutions is but one part of the reconstruction jigsaw.

David Sanderson has suggested that 'Architects are often the last people needed in disaster reconstruction' (Sanderson, 2010). He argues that architects are rarely taught the skills needed to work in the aftermath of an emergency and, unlike other humanitarian practitioners who focus on the people processes involved in recovery and reconstruction, architects are socialized into making personal marks through their own design projects. Sanderson also argues that many post-disaster shelter programmes have lacked 'genuine participation by affected people' (Sanderson, 2010). Likewise, Dana Cuff argues that architects in the USA have failed in the areas of civic engagement and urgency, despite their valiant work after the country's two greatest urban catastrophes – New Orleans and Lower Manhattan (Cuff, 2009). She relates these failures in approach to the modernist discourse of *tabula rasa* – of erasure and renewal – that attracts architects to the post-disaster space. Cuff references

Naomi Klein's theory of 'disaster capitalism' (Klein, 2007) that links profitable business to the political opportunities that come from certain approaches to reconstruction after a disaster, often to the exclusion of concern for the long-term welfare of the disaster survivors.

However, to blame architects entirely for such short-term and inappropriate shelter solutions is far too easy. Architects are only part of the reconstruction conundrum that is, ultimately, far more affected by the scale of the disaster, the political capability of the national government where the disaster has struck, the motivations of donors and the impact of the recent entry of large multinational construction and engineering conglomerates into the reconstruction field.

### **Why build a Ferrari when all you need is a moped?**

(Pollard, personal communication)

**We need to keep our fingerprints off the product as much as we can. Ironically, as an architect you are often aiming to make sure your fingerprints are very visible, to clearly have an impact through the design and construction and the resulting product. You want people to be aware of what you have contributed.**

(Graham Saunders)

It is easy to agree with both Sanderson and Cuff that there are too many badly designed, poorly built and wrongly sited examples of prefab(ricated) design experiments in the post-disaster field. I have witnessed on site the folly of experimental design solutions – from inflatable octagonal tents to polyurethane



△  
42 degrees inside! Igloo-style temporary housing, Port-au-Prince, Haiti (photo: Esther Charlesworth).

igloos and funky shipping container housing – in southern Sri Lanka, New Orleans, Port-au-Prince and, more recently, Sendai. We have also too often seen the impact of the mentality of the ‘universal solution’ in the field of emergency housing. As Nathaniel Corum comments:

**These are [post-disaster] projects that can’t go sideways. These designs need to work. I dislike the word ‘prototype’ within humanitarian architecture; if you’re going to build something in this space, make it right. Be your own guinea pig; test new ideas closer to home. Humanitarian design responses should be *less* experimental since we’re typically working in more challenging environments with community members who cannot afford failure.**

Ian Davis also argues: ‘These concepts are generally

prohibitively expensive; their exotic forms are usually ill-suited to local conditions ... Emergency housing sounds compelling, but it almost never works!’ (Davis, 1978). Shigeru Ban, known for his more *boutique* approach to shelter reconstruction, suggests in his interview that:

**We cannot make a universal prototype for temporary shelter like the universal solutions that the medical profession has for different diseases. That’s why I think it’s easier to send a doctor over there to help the people, but in architecture there is no universal solution. You must have the local people working, local architects.**

While I visited Haiti in 2012, a construction manager working with a large international development organization based in Port-au-Prince explained to me that his experience working with

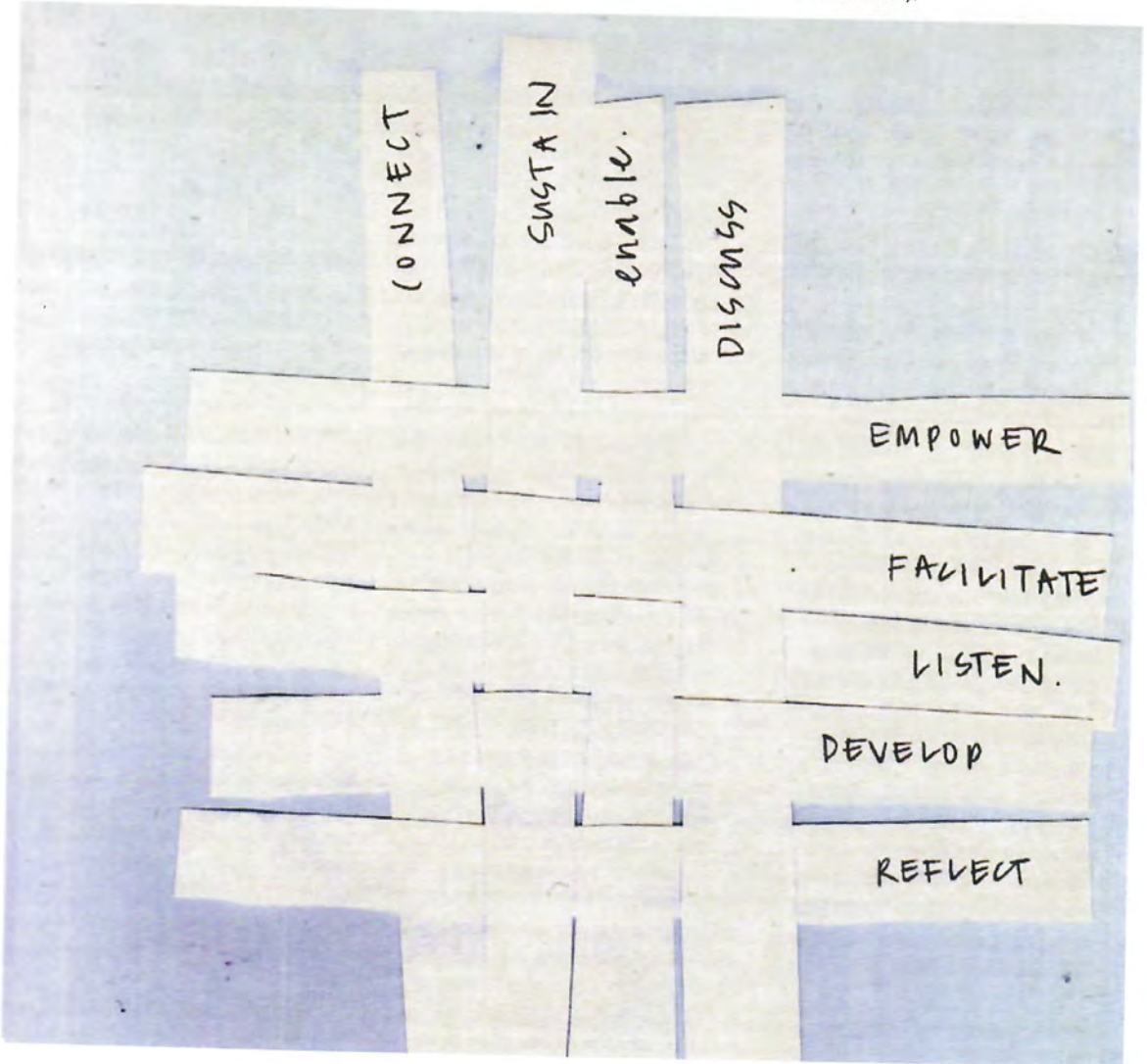
architects commissioned to design a transitional shelter structure had been ‘torturous’. Six architects had worked for six months to come up with an appropriate design for temporary shelter. He said that while the time frame was bad enough, none of the architects has bothered to observe local methods of construction or spoken to local builders or communities while coming up with their ‘unusable theoretical designs’. This experience led him to conclude that, ‘I could have come up with a better design on the plane on the way over here!’.

Again, it is too simple to criticize architects alone for badly designed settlement layouts or for housing projects that were rushed in order to shelter disaster-affected communities. As most of the interviews in this book reveal, being an architect in the post-disaster field is far from what is taught in undergraduate design



△ RMIT students working on a project for transitional housing in Hoi An, Vietnam, 2008 (photo: Esther Charlesworth).

▽ RMIT student diagram for community consultation techniques, Hoi An, Vietnam, 2011 (photo: Esther Charlesworth).



degrees or experienced working in a corporate or residential design firm. Examples of an individual architect coming up with an innovative, cost-effective and culturally appropriate design project and working alone in the disaster field are very rare. The reality is far more one of working through a systematic process of developing a project and donor brief, undertaking extensive community consultation with a wide range of project stakeholders and beneficiaries, working with health, logistics and education specialists, and ensuring that any project has ongoing funding to provide training and maintenance for the housing or infrastructure project. Despite these commonly accepted norms of development practice, design fantasies about appropriate shelter responses still abound when, in fact, budgets are incredibly modest. Graham Saunders from the International Federation of the Red Cross (IFRC) talks about these budget issues:

About a year ago we analysed the total expenditure on shelter across all major emergencies. This indicated that the average spend per affected household per shelter was \$50. The implication of this is that sophisticated, cutting-edge or innovative shelter solutions are very welcome but, due to the limited financial assistance made available for shelter and the scale of the need, such shelter solutions should cost no more than \$50. Although different disasters do result in different needs, and the resources available also vary significantly, there clearly is a 'reality gap' between the aspirations and solutions provided by the

**innovators and the possibilities at country level in a given emergency. The \$2,000 solution is very desirable, but it will be the \$50 version that is utilized at scale.**

### **Implications for architectural education**

Perhaps the chief factor behind the relative lack of architects involved in humanitarian architecture is the lack of training for post-disaster design problem-solving in design and architecture schools. While new postgraduate programmes in the area of humanitarian architecture are emerging in the UK, Spain and France, Marie Aquilino writes in *Beyond shelter*:

**There is still no career path that prepares students to work as *urgentistes* – design professionals who intervene at a crucial moment in the recovery process to produce enduring solutions.**

(Aquilino *et al.*, 2011, p. 7)

Many of the architects interviewed for this book found that their architectural education and initial work experiences in a design practice had not prepared them in any way to consult with communities, consider a non-corporate architectural career or to work in a non-Western context. My own education, completed in the 1980s, encouraged students to align themselves with a celebrity architect *du jour* or to latch onto arcane theories of postmodernism, post-structuralism and deconstruction in order to prove our mettle as intellectually *bona fide* architects. While learning architecture comprised a great deal of fun, 'all-nighters' and

assiduously following the paths of our then heroes – Richard Meier, Peter Eisenmann and Zaha Hadid – this education generally failed to equip students for even the next stage of their careers working in a traditional architectural practice as a junior designer.

British architect Lizzie Babister describes her experience in this way: 'The education of architects in the UK is very narrow. It is almost entirely focused on working in the UK and the developed world.' Shigeru Ban also comments: 'After working as an architect for a while, I became disappointed in the way that the profession was working only for privileged people, rich people, corporations.' Sandra D'Urzo adds to this discussion:

**Universities, of both the North and the South, are not equipping us well enough to be able to say, 'Yes, I want to go into development. Architecture is needed even more by the needy than the rich.' It's still very conventional the way we're taught architecture for rich and wealthy clients and socialized into wanting to be one the 'top ten' star architects.**

Thus, one of the aims of this book is to investigate the alternative humanitarian career paths that can be supported by the architectural profession for future generations of students – similar to the strands of public health and legal aid in the medical and legal professions. How do you pursue a career in international development and aid as a designer? The avenues for doing so have been remarkably slim to date, and many assume that you volunteer with a large aid agency for many years before



△ Straw bale house under construction, an example of Corum's work with Native Americans (photo: Skip Baumhower).

eventually securing one of the rare contracts with international development agencies such as the UN, Red Cross or World Vision. This book presents the professional journeys that these fifteen architects took to be working full-time in the disaster and development fields. Their journeys were not predictable or linear career paths, and many remarked that until very recently in the post-disaster shelter sector there had been a 'cowboy culture'

at play among international development agencies and indiscriminate hiring of casual building contractors, rather than qualified built-environment experts working in the humanitarian field. As evidenced through the interviews, no professional journey in the humanitarian sector was the same; each architect pursued their passions to connect issues of social justice with a career in architecture.

### Implications for architectural practice

What is most interesting is how humanitarian architecture has changed since the Global Financial Crisis. It prompted a re-examination of the purpose of the profession and forced people into asking larger questions. Why do we do this? Why do we spend so much time acquiring these skills? Why do we put so much passion into our work? Is it

worth it just to be in a magazine or to have an article written about you? Is it worth it just to have a very beautiful portfolio? Or is there some higher level of satisfaction that can be gained out of directing our architectural efforts elsewhere?

(Eric Cesal)

Today, the architectural profession is facing significant problems of perceived irrelevance and marginalization. It has largely stood outside the major global concerns arising from the twinned economic and ecological crises that define the second decade of the twenty-first century. In Spain and Portugal, 80 per cent of architects are now unemployed; a whole generation of designers is being forced to shift careers and move countries to seek employment. Many critics attribute this market failure of our discipline to the apolitical, pragmatic discourses that often shape commercial architectural practice (Gamez and Rogers, 2008). With a general focus on profit, design media, architectural awards and aesthetics, these discourses have helped create livelihoods for a relatively small number of professional designers compelled to work for the proverbial 2 per cent whom Bryan Bell describes as 'the very few, the elite, the highest income bracket served to excess by market forces' (Bell and Wakeford, 2008) in order to generate enough fees to support even a modest architectural practice. Thus, Bell argues, market forces, not social need, are determining 'whom we serve, what issues we address and the shape of all our design'. This has contributed to a narrowing of the discipline from one of its possible central roles in society – designing

homes and civic infrastructure for communities in need, for those whom, one might argue, need spatial innovation and ingenuity the most. The possibilities, however, for using the core skills of the architectural discipline for a much larger group of 'clients', or in Cynthia Smith's phrase 'the other ninety-eight per cent' (Smith and Unies, 2011), is well within our reach. Graham Saunders comments:

**Architecture is one of those ... few disciplines that actually combines the need for a real management rigour, careful planning and organization with an understanding of science, materials, technology and engineering. Architecture requires spatial awareness and the art of design. But it also requires the ability to put stuff into practice, to problem-solve and work with people with different skills and expertise, to plan and schedule a series of activities that all need to interlink.**

Brett Moore argues that the 'value add' of the architecture profession in the disaster relief scene is significant, through the challenge of having to produce a tangible product among the chaos that ensues after a natural catastrophe:

**I think that some of the skills that architects have, not just in design, but of being a facilitator, an organizer, an analyser, these skills are very important in the emergency field. These are not skills that human rights lawyers and others who have had a humanitarian education necessarily have. Architects are one of the few professional groups that are educated in how**

**to manage projects, to look at a problem and think of a succinct, rational solution with budget, materials, people involved, that also addresses a human rights issue – in this case, the right to safe and dignified shelter.**

### **A road map for reading humanitarian architecture**

The stories of the fifteen humanitarian architects in this book explore the transition of these designers from a traditional architectural career to engagement with the complexity of working with communities after a natural disaster. Each conversation is illustrated by a reconstruction project selected by the architect to demonstrate the ethics and principles of the agency or practice that the architect works within. In order to frame the diversity of practice employed within the humanitarian architecture field, the fifteen interviews are presented in three groups:

1. private architectural practice-based humanitarian architects;
2. university research-based humanitarian architects; and
3. NGO/international aid-based humanitarian architects.

Many of the fifteen architects straddle more than one of these categories. For example, when asked about his 'Robin Hood' model of design practice, Paul Pholeros answered:

**People tend to forget the fact that I still practise as an architect. They see my Healthabitat 'hat' and assume that's what I do all the time. Well I don't. I still work as a 'traditional' architect. Why? Well, first, it pays the bills and,**

second, it's what I was educated to be. It's what I was trained to do, and most importantly, I still enjoy it. Yes, if the 'Robin Hood' analogy is about using some of my earnings from the wealthier clients and the time it buys working for poorer clients – clients that may never ring my office – then that's true.

This book aims to survey a wide range of individual architects who are working nearly full-time in the post-disaster field. While several of the architects such as Ban and Pholeros maintain mainstream architectural practices, it is interesting that it is their post-disaster and development work that has placed them in a media spotlight. Ban comments about his dual design practice:

People would commonly say to me, 'Why are you involved in that disaster stuff? Why aren't you doing real architecture?' I do both. I run a private architectural practice doing houses and other typical architectural projects. I also work a lot after disasters. It's very important for me to do both. The bigger buildings help me do the disaster relief projects. I hope to do both sorts of project simultaneously. I always tell my students, 'You have to get experience first, before working in a disaster area. Otherwise you'll never get any experience as an architect.'

This book is intended to capture the extraordinary range and spirit of a small sample of architects working in the challenging environment of the post-disaster field. Humanitarian architecture (or whatever we call it) is expanding rapidly in response to the global rise of disasters and related issues of displacement, migration and poverty. We do need to be realistic. In any form of design practice, there will be good and bad projects. The same is true in the aftermath of a disaster. Nevertheless, with skilled consultation and the development of short- and long-term strategies for reconstruction, the architectural discipline has a critical role to play – alongside other international development professionals – in designing and implementing strategic spatial solutions for the shelter and infrastructure destroyed by disaster.

After a catastrophe, there is still a role for beauty, innovation and humility. Indeed, it is more important than ever.

## References

- Aquilino, M., Brillembourg, A., Coulombel, P., & Klumpner, H. (2011). *Beyond shelter*: Metropolis Books.
- Bell, B., & Wakeford, K. (Eds) (2008). *Expanding architecture: Design as activism*: Metropolis Books.
- Charlesworth, E. (2006). *Architects without frontiers: War, reconstruction and design responsibility*: Routledge.
- Charlesworth, E. (2012). Interview with Jo Da Silva, founding director of Arup International Development, London, 15 April. Unpublished.
- Cuff, D. (2009). Design after disaster. *Places*, 21(1): 4–7.
- Davis, I. (1978). *Shelter after disaster*: Oxford Polytechnic.
- Dean, A.O., & Hursley, T. (2005). *Proceed and be bold: Rural studio after Samuel Mockbee*: Princeton Architectural Press.
- Economic and Social Commission for Asia and the Pacific and the United Nations Office for Disaster Risk Reduction (2012). *Reducing vulnerability and exposure to disasters: The Asia-Pacific disaster report 2012*.
- Ferris, E., & Petz, D. (2012). *The year that shook the rich: A review of natural disasters in 2011*: Brookings Institution – London School of Economics Project on Internal Displacement.
- Gamez, J., & Rogers, S. (2008). Architecture of change, in B. Bell & K. Wakeford (Eds), *Expanding architecture: Design as activism*: Metropolis Books.
- Harmeling, S. (2009). *Global climate risk index 2010: Who is most vulnerable?; Weather-related loss events since 1990 and how Copenhagen needs to respond*: Germanwatch. Available online at [www.germanwatch.org](http://www.germanwatch.org); accessed 20 February 2012.



- Huffington Post* (2011). Natural disasters displaced 42 million in 2010; climate change could be factor, experts say. Available online at [www.huffingtonpost.com/2011/06/06/natural-disasters-displaced-persons\\_n\\_871664.html](http://www.huffingtonpost.com/2011/06/06/natural-disasters-displaced-persons_n_871664.html); accessed 4 February 2014.
- International Federation of Red Cross and Red Crescent Societies (2012). *World disasters report 2012: Focus on forced migration and displacement*: International Federation of Red Cross and Red Crescent Societies. Available online at [www.ifrc.org/publications-and-reports/world-disasters-report](http://www.ifrc.org/publications-and-reports/world-disasters-report); accessed 20 September 2013.
- Klein, N. (2007). *The shock doctrine: The rise of disaster capitalism*: Macmillan.
- Munich RE (2013). *Topics geo: Natural catastrophes 2012: Analyses, assessments, positions*: Munchener Ruckversicherungs-Gesellschaft. Available online at [www.munichre.com/publications/302-07742\\_en.pdf](http://www.munichre.com/publications/302-07742_en.pdf); accessed 20 September 2013.
- PBS (2013). *Intectect: The international disaster specialists*. Available online at [www.pbs.org/wgbh/pages/frontline/shows/cuny/bio/intectect.html](http://www.pbs.org/wgbh/pages/frontline/shows/cuny/bio/intectect.html); accessed 4 February 2014.
- Rieff, D. (2003). *A bed for the night: Humanitarianism in crisis*: Simon and Schuster.
- Sanderson, D. (2010, 3 March). Architects are often the last people needed in disaster reconstruction. *The Guardian*.
- Schneider, T., & Till, J. (2009). Beyond discourse: Notes on spatial agency. *Footprint*, 4, 97–111.
- Smith, C.E., & Unies, N. (2011). *Design with the other 90%: CITIES*: Cooper-Hewitt, National Design Museum.
- van Schaik, L. (2011). Architecture and a sustainable city: Overview. In E. Charlesworth & R. Adams (Eds), *The EcoEdge: Urgent design challenges in building sustainable cities*: Routledge.

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