

Creation and Catastrophe

Symposium April 7th 2016 | Report



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Executive Summary

This symposium brought together leading industry professionals and academics to discuss issues of practice, teaching and research in the roles of built environment professionals seeking to assist in disaster risk reduction, climate change adaptation, disaster and conflict risk management and recovery and reconstruction both in industrialised and developing countries.

The main character of the event was sharing of information, capacity and approaches of different groups broadly based in built environment professions who had not previously been in dialogue together. A wide variety of organisations were present at the event, and many viewpoints were raised in presentations and discussion. As a result, a full understanding of the possibilities for engagement of built environment professionals in humanitarian settings were considered.

Professional associations and practices mapped out existing global information and accreditation networks, and presented case studies of partnership approaches, one telling example involved high-end design meeting need at scale. UN-Habitat and International Federation of Red Cross and Red Crescent Societies (IFRC) contextualised the global

humanitarian shelter and settlements approaches, identifying the challenges and scope, especially in rapidly urbanising areas. Academic institutions described knowledge-based opportunities in learning and research capacity. Operational agencies described the challenges of putting ideas into action.

The result was a stimulating, enjoyable wide-ranging debate, with a willingness to continue discussion on these topics and to develop some concrete activities and partnerships to build on existing strength and develop capacity.

Some proposals for key themes to work on in the near future included promotion of activities to develop professional status in humanitarian and development practice, development of linkages between global and local organisations, and an understanding of how innovation and creativity can be encouraged through strategic alliances and knowledge sharing.

Watch this new collaborative space for more developments in the near future.

Charles Parrack

Centre for Development and Emergency Practice (CENDEP), Oxford Brookes University

Organising Committee

Ian Davis

Esther Charlesworth

Graham Saunders

Camillo Boano

Charles Parrack

Coordination of Symposium Report

Sigrid Ehrmann / RMIT Europe

For the first time in history, half the planet lives in cities and that number is expected to grow by 20% by 2050. This urbanisation phenomena along with climate change creates stresses in the urban built environment. But it is not only natural disasters, migration, poverty, terrorism, infrastructure failures, that cause disruption in cities everywhere in the world. We believe that design plays a key role as a strategic tool to help resolve complex global challenges and that is the focus of RMIT Master of Disaster, Design and Development.

From the RMIT Europe office in Barcelona we develop research and international education programmes for RMIT students. One of the areas of focus at RMIT Europe is Urban Futures, which explores the complex interplay of places and people shaped by the dynamics of technologies, economics, social and political change.

As part of our Urban Futures programme, RMIT Europe launched the new Master of Disaster, Design and Development of the School of Architecture to build city resilience and design systems for disaster alleviation. The Master course will include intensive seminars in Barcelona and Melbourne incorporating real work with multidisciplinary



MoDDD

Master of Disaster, Design and Development

teams across sites of environmental and economic risk. We are working with our partners University International of Catalonia, UN-Habitat and the Federation of the Red Cross to provide a global learning platform to design spaces and cities that allows them to be resilient and thrive in the future.

Marta Fernández
Executive Director
RMIT Europe

Introduction and Objectives

The *Creation and Catastrophe* Symposium was held on 7 April 2016 in London. The event brought together over 60 participants and was organised in collaboration with RMIT University, Oxford Brookes University and the International Federation of Red Cross and Red Crescent Societies. It was hosted by the Royal Institute of British Architects (RIBA).

The community of practitioners, academics and representatives of government and non-government organisations working in the disaster and development sector were invited to facilitate information sharing and cross boundary links.

With the diversity of professional roles across the participants, the organisers aspired to build links with the built environment and explore future collaborations as well as to create a frame of reference for the community.

Among the topics to be debated were issues regarding professional recognition and accreditation of architectural work in the disaster and development sector as well as how to promote the interest of the architecture profession in risk reduction not just post-disaster settlement.

Furthermore, the symposium is thought to be the first in an annual event series or meeting forum to start a 'network of networks'.

This report summarises the panel presentations and discussions and highlights the outcomes and future actions resulting from the symposium.

The Symposium was designed to:

- Invite the community and initiate an annual event*
- Facilitating cross boundary links, information sharing and explore new collaborations*
- Create a frame of reference for academics, practitioners, institutions and government*
- Build links with the built environment professions*

RIBA Exhibition *Creation from Catastrophe*

The symposium formed part of a series of events around the exhibition *Creation from Catastrophe: How Architecture rebuilds Communities* at the Royal Institute of British Architects from 27 January to 24 April 2016.

The destruction of cities, whether man-made or natural, can present unique opportunities to radically rethink townscapes. *Creation from Catastrophe: How Architecture rebuilds Communities* explored the varying ways that cities and communities had been re-imagined in the aftermath of natural disasters.

From masterplans to reconfiguring London after the Great Fire of 1666 to contemporary responses to earthquakes and tsunamis, the exhibition considered the evolving relationship between human, architecture and nature and asked whether we were now facing a paradigm shift in how we live and build in the 21st century.

From London in 1666, through to 18th century Lisbon, 19th century Chicago, 20th century Skopje, and ending in current day Nepal, Nigeria, Japan, Chile, Pakistan and USA,

the exhibition was illustrated by historical and contemporary work by, among others, Yasmeen Lari, ELEMENTAL, OMA, Shigeru Ban, NLÉ, Toyo Ito, Metabolism (Kenzo Tange and Kurokawa Kisho) and Sir Christopher Wren.



"A disaster zone where everything is lost offers the perfect opportunity for us to take a fresh look, from the ground up, at what architecture really is."

Toyo Ito

Background Story & Survey

Ian Davis about the origins of the symposium

How did the idea originate to celebrate the symposium 'Creation and Catastrophe'?

My grandson, who works in building conservation, contacted me to tell me about the RIBA exhibition: 'Creation and Catastrophe'. This came as a total surprise since in the forty-four years I have been working in the disaster/dwellings/settlements/reconstruction fields, there had never been an exhibition, or symposium at the RIBA that considered this theme. The next day I circulated a note to colleagues working in this field to let them know about the exhibition - although most knew about it already, and I suggested that we could convene a parallel symposium that could build on the momentum of the exhibition.

Why did you think there was a need to initiate a more formal international network of practitioners working in the humanitarian sector?

Many networks already exist, but some are isolated from others. So this seemed to provide an opportunity to bring together the built environment community interested or deeply involved in the disaster context.

Who are the critical people involved in the symposium?

Initial thoughts were to contact a series of academics that included Esther Charlesworth and the RMIT network, Charles Parrack at CENDEP, Tony Lloyd-Jones at the University of Westminster and David Alexander, John Twigg and Camillo Boano at UCL/DPU. Graham Saunders at The International Federation of Red Cross and Red Crescent Societies (IFRC) was a key person and Jo da Silva at ARUP International, Maggie Stephenson at UN-Habitat and John Norton at Development Workshop, France (DWF) were central figures within the consultancy field.

Who are you hoping to reach?

The full spectrum of decision makers: professionals in practice, academics, post-graduate students, writers, government and NGO officials, RIBA leaders as well as representatives of other professions: the Royal Institute of Chartered Surveyors (RICS), the Royal Town Planning Institute (RTPI) and the Institute of Structural Engineers.

What conversation were you interested in starting through the symposium?

Seeking opportunities for effective work, defining roles for professional bodies, such as the RIBA, debating certain key issues such a

process and/or product emphasis. It seemed that the time was ripe for a radical review of this subject. The proposed symposium could be an ideal vehicle to move the subject forward by promoting a shared concern for greater coherence, closer integration, and creative ways to tackle long-outstanding problems in the humanitarian field.

What benefits and future activities are you hoping will be generated through the symposium?

- To help place this topic more firmly on the RIBA/RICS/RTPI agenda
- To provide encouragement for young professionals to work in the field
- To build on the momentum of this event to keep the community together to organise further exhibitions/symposia and publications.

How does the symposium relate to the RIBA exhibition 'Creation from Catastrophe'?

The planners of the symposium attempted to expand on the exhibition, to fill some gaps and amplify the message that disasters as well as causing chaos provide unique opportunities for change - 'forms can follow failure'.

The Survey

In preparing for the symposium, Ian Davis, Visiting Professor in Disaster Risk Management at Lund, Kyoto and Oxford Brookes Universities, asked participants the following questions:

What in your view needs to happen, to enable concerned professionals working in the built environment field to function more effectively, in pre-disaster contexts (creating safe buildings and settlements) and in post-disaster reconstruction?

What emerged from this survey?

A summary analysis by Ian Davis

1. Diversity of responses

The twenty-two persons who responded to the invitation provided a rich collection of responses. These are the dominant themes, that received repeated attention:

- **Improve and expand relevant education**

The education of architects, as currently experienced in both higher education as well as in continuing professional development, fails to equip people for the challenges of pre or post disaster practice. Knowledge gaps in architects etc. are often extensive concerning working methodologies, community-based

solutions, non-engineered construction etc.

- **Decide how, why, who and what to integrate?**

Improved integration is a repeated concern. There is a need to link pre and post disaster response, reconstruction and recovery, integration of poverty reduction and disaster response, integration of sectors, professions, stakeholders, disciplines, north-south links etc.

- **Develop a wider and richer understanding of the issues**

Professionals seeking to work in this complex field need a greater understanding of systems, the humanitarian system, affordability, political constraints, spatial identity, social dynamics, cultures and contexts, the built environment, networks, safety, past experience, vulnerability, community dynamics and capacity development. However, there is a shortage of advice on how such gaps can be filled, other than through education.

- **Define the roles of stakeholders**

Multiple stakeholders are noted, with informed comment on how their roles are defined and how they need to change to become more effective. Such roles included: professionals,

“Reducing poverty is central to reducing vulnerability. Built environment professionals are not often trained to address this.”

John Norton

“The challenge for professionals – national and local, not only international – is how to engage with the majority of construction that happens as non-engineered structures in informal, unplanned settlements. This is where the major risks and vulnerabilities are.”

Graham Saunders

professional bodies, private sector, academics, governments (national and local), NGOs and regulatory authorities.

- **Build capacity**

Recognise that local communities need active support in devising their own recovery and in building in a safe and efficient manner.

- **Work through national and local governments**

There is a need for external groups to strengthen national governments in disaster-prone countries and operate under their authority.

- **Consult, participate and involve survivors**

This is essential in every stage of the recovery process, as well as to regard survivors as the 'clients' of assisting groups.

- **Recognise time dimensions**

It is important to grasp the time span of recovery options and to use available time effectively and efficiently.

- **Define roles of professional bodies**

Detailed suggestions are included for the RIBA and other professional bodies to play enhanced roles in DRR and disaster recovery tasks.

- **Emphasise safety**

Develop technical options to satisfy official standards and regulations that are affordable and relevant to key vulnerable groups. Enable families who are 'at-risk' to reduce their own risks.

2. Individual comments

Certain respondents made perceptive comments not repeated by others. They include:

- **Creativity**

The need for creative thinking and problem solving.

- **Infrastructure**

The importance of infrastructure enabling the flow of goods, services, knowledge and people, and protection.

- **Pre-Planning**

Development of plans for reconstruction and recovery before disaster strikes.

- **Success stories**

Provide encouragement by documenting examples of successful risk reduction and recovery practice.

- **Create meeting places**

Devise a forum where mutual engagement and discussion can occur between practitioners and professionals.

- **Create public places**

The need for public places or 'high streets'

within reconstructed settlements.

- **Expand the private sector**

Develop their role: charge commercial rates in lieu of pro bono work. Develop skills to provide a valuable service.

- **Improve the quality and safety of the dwellings of families, who exist outside the normal scope of assisting groups**

Consider ways to support 90% of surviving families needing shelter who do not secure external support.

- **Links between natural disasters and ethnic conflict**

Be aware of the long-term challenges in dealing with ethnic conflict exacerbated by disasters.

The full survey is attached to this report as Appendix 4.

Event Overview

The *Creation and Catastrophe* Symposium commenced with an introduction by RIBA President Jane Duncan and an opening address from Ian Davis and David Alexander.

Four panels were presented with the topics *Current, Emerging and Needed Roles for the Built Environment Professional – Before and After Disaster; Shelter: Process or Product? Enabler or Provider? Outcome or Output?; Research and Training: Challenges for Design and Development – Professionals working in the Humanitarian Sector*; and *Stories from the Field*.

The thematic panels were followed by a Plenary Discussion to explore proposals for further action chaired by Nabeel Hamdi and Dan Lewis. The following sections provide an overview of the four sessions and presenters.

- **OPENING ADDRESS** by Ian Davis and David Alexander
- **PANEL ONE - Current, Emerging and Needed Roles for the Built Environment Professional, Before and After Disaster**
Convenor: Graham Saunders
Presenters: Peter Oborn, Dan Lewis, Maggie Stephenson, Rafe Bertram
- **PANEL TWO - Shelter - Process or Product? Enabler or Provider? Outcome or Output?**
Co Convenors: Ian Davis and Hayley Gryc
Presenters: Yasemin Aysan, Nabeel Hamdi, Rumana Kabir, Olga Popovic Larsen
- **PANEL THREE - Research and Training - Challenges for Design and Development Professionals working in the Humanitarian Sector**
Co Convenors: Esther Charlesworth and Rory Hyde
Presenters: Camillo Boano, Esther Charlesworth, Cathrine Brun, Carmen Mendoza
- **PANEL FOUR - Stories from the Field**
Convenor: John Norton
Presenters: John Norton, Bill Flinn, Robin Cross
- **PLENARY DISCUSSION - Proposals for further action**
Rapporteur: Charles Parrack
Presenters: Nabeel Hamdi and Dan Lewis

Keynote

Ian Davis and David Alexander opened the symposium with their thoughts concerning creation and creativity and thoughts concerning catastrophe.

The keynote picked up on the theme of the day *Creation and Catastrophe*. As Ian Davis explained, the symposium's theme varied from the exhibition title *Creation from Catastrophe* to emphasise the importance of pre-disaster activity, risk reduction and climate change adaptation as well as post-disaster reconstruction. Architecture can have a powerful impact as people are affected by recovery and reconstruction decisions. Ian Davis, Visiting Professor in Disaster Risk Management at Lund, Kyoto and Oxford Brookes Universities, presented five contentions about creation and creativity:

1. Creativity is a vital, yet badly neglected quality needed in all aspects of disaster risk reduction and disaster recovery, specifically by the large body of people involved in recovery and reconstruction activities. For example, the World Bank Reconstructions Guidelines of 2010: *'Safer Homes, Stronger Communities'* do not mention the word creativity once. This clearly shows that the need for creative thinking is undervalued. In a survey undertaken for their book

'Recovery from Disaster' Ian Davis and David Alexander asked a question to leaders in the post-disaster reconstruction field: What constitutes 'Effective Recovery'? Only one response out of fifty mentioned the work creativity.

2. The creative contribution of built environment professions is vital. They contain a large variety of creative people who have made and continue to make decisive contributions to disaster recovery and construction. Architecture can be symbolic for recovery.

3. Architects and other professions are not so effective in sharing and liberating, or releasing, the latent creativity of survivors, builders, officials etc. Hence arises the question: How do we share creativity? And how does this relate to the difference between process and product?

4. Creativity is not confined to visual concerns. It is about innovative insights, making 'a lot from a little', lateral thinking and imagining something radically different. The entire reconstruction process should be turned into a creative adventure. Furthermore, it has to be highlighted that disaster recovery is

"Disaster recovery utilizing victims as key players moves beyond replace and restore towards creativity and change."

Russell R. Dynes

Founder of Disaster Research Centre (DRC), University of Delaware

"Architects love designing houses. We love deciding what is possible with budgets, space planning for future extension, imagining a life, deciding on what shade of blue."

Why would you want to take that away from others? Why would we not want to enable everyone to be architects themselves?"

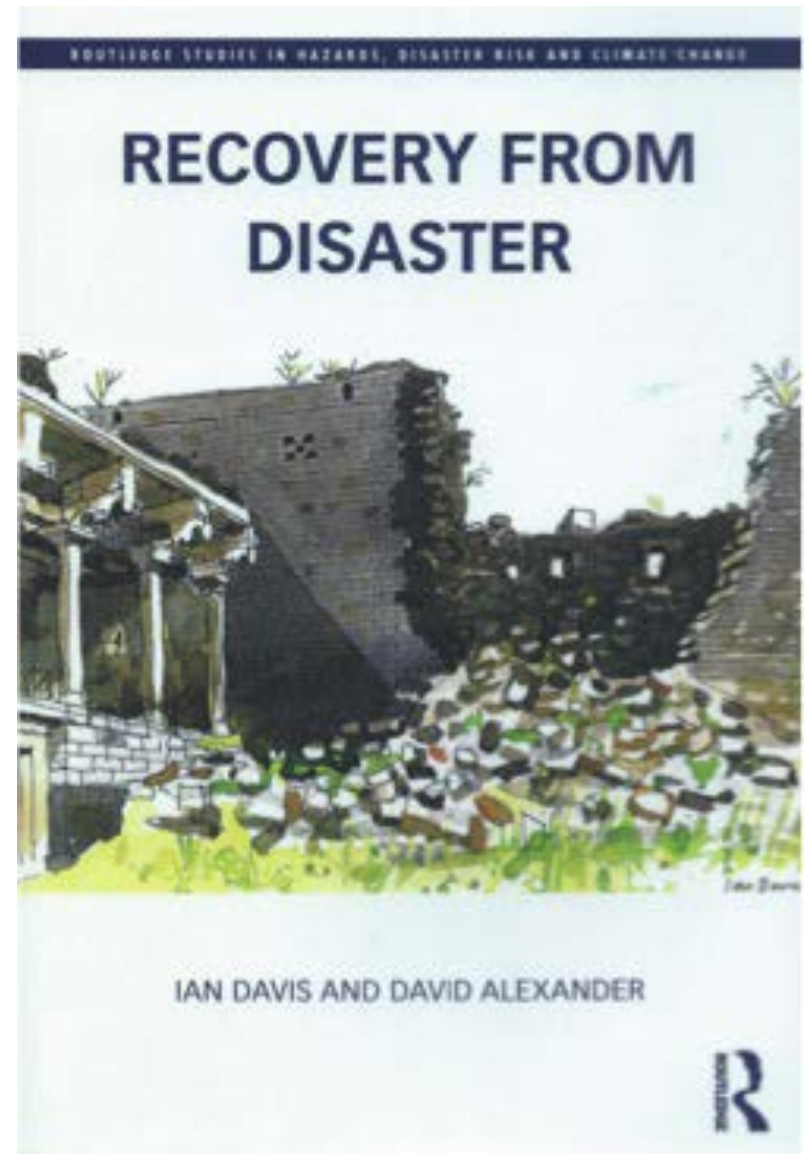
Maggie Stephenson

"People get in the way of creative work, they clutter up the process. Consensus building waters down creative work to the lowest common denominator."

Nabeel Hamdi

far wider than only physical concerns. There is a pressing need for creative management, leadership, ideas, plans, strategies, structures, organisations and relationships.

5. To conclude: while creativity is often neglected and hard to pin down since it is an awkward, untidy and unruly commodity... it is nevertheless an essential element in disaster risk reduction and recovery management. Thus creativity in the disaster field is neglected, yet essential.



In part two of the keynote '*Thoughts on Destruction*', David Alexander reflected on disaster response and the need for a holistic approach and to constantly broaden our view of things.

This requires the understanding of the relationship between the things we know or should know, and those we do not or cannot know.

Furthermore, one of the great challenges for all fields, one that the architecture and built design professions will have to face, is the possibility that the disaster field will partially merge with the areas of climate change adaptation and human mobility.

Climate change adaptation, disaster response and mitigation and increasing displacement and migration will change the game quite substantially. This constitutes a very complex working field with the need to take a complex view and on different planes.

There are constant factors that amplify risk or mitigate risk. The critical point in this constellation is perception. Risk perception factors can be positive or negative and tend to dominate the dialectic.

This closely connects to culture and ideology, which have an enormous influence both in a

benign way at the service of the people as well as in a malign and corrupt way at the service of vested interests.

Hence, we need to look at the root causes like vulnerability. There are different kinds of vulnerabilities, such as a total vulnerability in terms of the general precariousness of life, economic vulnerability as people lack adequate occupation, technological/ technocratic vulnerability due to the riskiness of technology, delinquent vulnerability caused by corruption, negligence etc., residual vulnerability caused by lack of modernisation and newly generated vulnerability caused by the changes in circumstances.

Therefore, to create resilience and to adapt to disaster, the causes, the history and the cultures in which we work have to be taken into consideration. Culture will facilitate work or it will inhibit it, if the work is counter-cultural.

There are many definitions for resilience and risk adaptation, with one of the most appropriate originating in the field of mechanics: the combination of strength and ductility in society that will lead to the ability to resist disaster and the ability to adapt to it.

Human misery:

poverty, disease, malnutrition, conflict, displacement, disasters... and climate change?

Post-disaster architecture must reinforce:

- sense of place*
- sense of belonging*
- sense of self-determination and autonomy*

To create resilience against disasters

- different planes - different facets*
- build in redundancy*
- respect and enhance local culture*

Hazard and vulnerability combined together create the risk of disaster. How might therefore resilience reduce disaster?

The real challenge lies in the interface of different systems: the organisational and technical, the social and political, as well as the natural and social systems.

Disaster architecture and efforts to reduce disaster risk and recover from disaster must reinforce a sense of place, a sense of belonging, a commitment to a place, the possibility for self-determination and autonomy and maintain that commitment to place.

To create resilience against disaster we need to look at the different planes and facets, we have to build in redundancy and need to look at different ways of doing things. This leads again to the importance of creativity and the respect and enhancement of local culture. The inclusion of the local population in the process will make them support it politically, socially and economically.

Furthermore, the mitigation of disaster needs to gain more importance than disaster response.

The following questions were posed at the end of the keynote:

- *When does creation follow catastrophe?*
- *What forms can follow failure?*
- *What failures can follow new forms?*
- *When does catastrophe follow creation?*
- *How can creativity support the entire recovery process?*

It is important to create an environment where people have a direct stake in what is going on and can exercise some power and authority. Creativity is usually executed top down, an approach that is not very successful. Processes need to be organized bottom-up and compromises made where people are part of the system.



Permanent ferro-cement dwellings in Kilari after the 1993 Latur earthquake, India

Panel One | *Current, Emerging and Needed Roles for the Built Environment Professional – Before and After Disaster*

Convenor

Graham Saunders

Head, Shelter & Settlements – International Federation of Red Cross and Red Crescent Societies

Speakers

Peter Oborn

RIBA Vice President, International

Dan Lewis

Chief, UN-Habitat, Disaster and Post-Conflict Section (DPCS)

Maggie Stephenson

Teaching Fellow, Building and Urban Design in Development, University College London

Rafe Bertram

Partner, Foster + Partners

The first panel of the symposium dealt with *Current, Emerging and Needed Roles for the Built Environment Professional – Before and After Disaster*. In this context we need to remind ourselves of the scale of economic impact of disasters. Over the last ten years the economic loss due to disasters is 1.4 trillion dollars. 1.7 billion people were affected by disaster. A significant part of economic loss is related to the built environment. As an example, 50% of economic loss regarding the Indonesian tsunami catastrophe was related to the built environment, in terms of cost of rebuilding housing and infrastructure. The built environment represents a big component of risk but also gives the opportunity to address those risks.

Dan Lewis, Chief of the UN-Habitat Disaster and Post-Conflict Section, was asked how UN-Habitat has been engaging with built environment professionals and governments from a development perspective, in reference to UN-Habitat's recognised role in working with government particularly in the area of housing, planning and built environment. Dan Lewis pointed out that there is limited experience with built environment professionals at national government level.

Furthermore, some of the greatest failures regarding post-disaster reconstruction are the result of limited or lack of capacity at local government level to manage and control processes such reconstruction programmes (in respect of human settlements) and the capacity of those professional to provide oversight and clients enforcement. Additionally, there is also a lack of capacity for reinforcing regulations.

UN-Habitat has much greater engagement with built environment professionals in the community of practice, primarily in the humanitarian sector.

These issues constitute some of the key problems regarding catastrophe and creation. Further major challenges are the leveraging of the humanitarian programming that is taking place for permanent gain, to building low resilience and sustainability into the programming undertaken in the immediate aftermath of a disaster and the reconstruction. This also applies to planning. In 2009, for example, UN-Habitat finished a two-year deep consultancy process to develop a new spatial plan for the city of Port-au-Prince in Haiti.

There is already a framework in place re-

envisioning the entire city of Port-au-Prince. This process is trying to 'build out' some of the risk and 'build in' some of the resilience. Another problem is the lack of planning authorities in many countries. Crisis causes displacement. But displacement is very rarely followed by a vacuum of occupancy.

When people flee and leave buildings behind, they will usually be occupied again immediately. This leads to a loss of rights of the previous occupants (use/occupation, inheritance etc.).

Within the humanitarian community exists very little incentive to tackle this, due to political reasons and conflict potential. The challenges of looking for restitution in the immediate aftermath of a crisis and displacement are very complex and very political. The preparation of built environment professionals to engage in the aftermath of catastrophe demands an understanding of what is required for a house/community centre/school/office building to function as a permanent and resilient asset to the community. It is not just about design; it is about function, organisation and spatial

distribution. How do we ensure within the system a small contribution to the bigger system of resilience?

Furthermore, built design professionals have a responsibility to take the same level of due diligence to disaster response than in other environments, starting with the initial planning process, planning permission, land acquisition, zoning regulations, traffic, parking etc.

This is the contribution of the profession.

To summarise, there are two key elements:

1. The importance of the design of culturally, economically, contextually relevant built environments, keeping in mind the concept of how you can use these in the immediate aftermath of the crisis to contribute to resilience
2. Bring the knowledge of the due diligence as applied in the profession to environments where that capacity currently does not exist.

Maggie Stephenson reflected on 'practising the craft', and questioned what it means and why it does have to be so narrow. The term creation within the architecture profession has turned into a very narrowly defined design

definition. The focus is not on how things are made, how they are financed, the material processes or more widely about change. How do things change? Why do they change? Who drives the changes? These processes are where the creativity and creation lies. We need to focus less on authoring and the design process, reputation, portfolio and publications.

It needs to be asked why architects are not getting involved in these other domains where they are invisible but more strategic, where we are leveraging our resources, where we apply different kinds of business models and where we are looking at systems, sharing process and knowledge we already have rather than insisting to holding onto it.

During crisis times there is a much wider attention on the built environment - how it is made, how it has changed and how it is going to change. These are transformative moments but are we as a profession engaged in this discussion in a strategic way?

It needs to be noted that architects have very little impact on the transformative process after a crisis.

Therefore, how do we change what we want to do and what we produce? Are we

measured on impact? What value do we bring?

What are architects contributing to the transformation of cities in terms of climate change and other challenges? What economic, social or health improvements can we instigate?

If architecture can get involved in the every day, we will be more effective in the extraordinary day when a crisis occurs.

Rafe Bertram from international architecture firm Foster + Partners presented challenges and opportunities of a project in collaboration with the Red Cross. Habitually post-catastrophe shelter tents are efficient in hot and rainy climates as protection from wind and rain, but they are not suitable for cold climates.

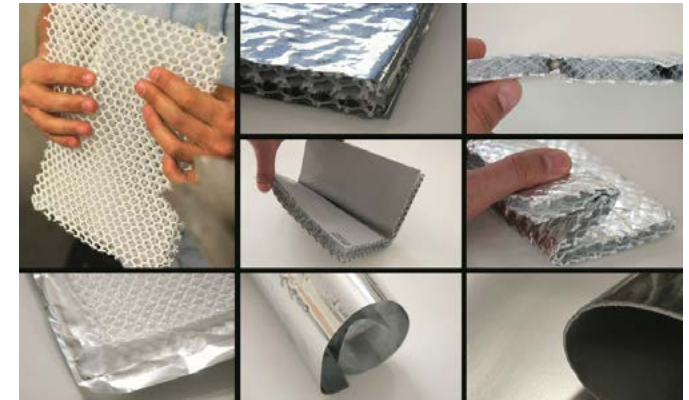
The task consisted in improving existing tent designs and finding out the best way of constructing a tent fit for cold climates where the heat does not get lost when entering the tent. The prototypes were fabricated in Turkey by Turkish tent manufacturers and then shipped to Mongolia for testing in temperatures down to -30 degrees.

The project was realised through the development of a series of innovations in an interdisciplinary collaboration with the shelter research unit and included an extensive amount of sensing, testing, gathering, understanding and re-configuring.

The result was an expandable insulated unit – a tent that could be packed tightly but expanded by unpacking. It is not made of woven fabric but felt, which you can create incredibly quickly by mashing fibres together. Hereby the project team worked with local felt-makers to see how they can expand it and increase their properties. The characteristics of the felt production mean that the tents can be produced on a large scale.

According to Rafe Bertram, the first challenge to be confronted with lies within ourselves: How can we become humble? Heroic failure can be okay.

Secondly, how can innovation be created at a scale that can be produced in hundreds of thousands of units around the world? For example, three-dimensional fabrics can be scrounged up, packed tightly into the right volume and as you unpack them they open up, breathe and insulate. But they are not readily available and expensive.



Winterisation of Tents for the Red Cross
© Foster + Partners

Furthermore, how do you communicate how to build a tent to disaster survivors? How can simple instructions to erect a tent be given to someone who might have suffered a huge disaster and is traumatised?

Peter Oborn, RIBA Vice President - International, explained RIBA's work to develop a more effective engagement with the humanitarian sector:

The core purpose of RIBA as an institution with an international footprint is the advancement of civil architecture, to serve society and advance the profession. The four key activities are the setting of educational standards, the development of professional standards, the engagement and public outreach through lectures and exhibitions as well as raising awareness of architecture.

One of the other main objectives is the influence on government policy.

Today, the advancement of architecture means the promotion of sustainable development in the broadest possible sense - economically and socially, to meet the

challenges of climate change and reduce our impact on the environment. The promotion of healthy cities can be achieved by demonstrating the value of good design.

Another focus point is international outreach and education. This consists of promoting the engagement particularly with young people and civil society in developing countries as well as working in partnership with professional colleagues around the world. A government policy overseas is influenced by helping to transfer environmental expertise to other countries (i.e. Oman).

Regarding the engagement of RIBA, a context change regarding the humanitarian sector can be noted towards a much deeper engagement on a bigger scale. There is also the question how the institute should engage with communities that face natural disasters, civil conflict, displacement, migration and human rights issues. Working conditions and labour issues constitute further working areas as well as constructional standards, building codes and building failures. Hereby, a shift of emphasis from response to prevention, from prevention to resilience, from resilience to business as usual can be noted.

Examples for new initiatives with the cooperation of RIBA include the 'International Ethics Standards Coalition' with the aspiration to raise standards throughout the profession and the world and the UK Built Environment Advisory Group, an initiative with the engineering and planning institutes to provide more proactive support in strategic policy making.



Building Capacity and Raising Standards © RIBA



Promoting Engagement © RIBA

Summary

National and municipal authorities are increasingly challenged by the growing scale and complexity of humanitarian crises, managing ever-changing risks due to urbanisation and climate change, and the diversity of actors engaged in meeting both humanitarian and developmental needs. Combined with shrinking public capacities and budgets, new ways of doing business are required through innovative partnerships with private sector actors and the provision of targeted technical, professional support through the use of available aid budgets. Such resource constraints, particularly in the context of major disasters, can result in governmental response strategies that are inadequately informed from a practical built environment perspective, or require substantial modification during implementation to address detailed planning, construction or sustainability issues. The professional institutes are increasingly engaging with their respective counterparts both regional and internationally, to support and promote the involvement of the professions in shaping national and local government policy and also to enhance learning and knowledge transfer within the professions themselves. This is also reflected

in the greater involvement of the private sector in humanitarian action, particularly through the use by major donor governments of international development business units of major multinational built environment design, construction and management companies to provide core humanitarian services, and the increasing provision of private sector built environment technical services and capacity to humanitarian and governmental response entities.

Panel Two | *Shelter: Process or Product? Enabler or Provider? Outcome or Output?*

Co Convenors

Ian Davis

Visiting Professor in Disaster Risk Management in Lund, Kyoto and Oxford Brookes Universities

Hayley Gryc

Associate, Arup – Arup International Development Group

Speakers

Yasemin Aysan

Independent Consultant

Nabeel Hamdi

Emeritus Professor of Housing and Urban Development, Oxford Brookes University

Rumana Kabir

Architect/Independent Shelter and Housing Consultant, RedR Member and Trustee

Olga Popovic Larsen

Professor in Architecture and Structures, School of Architecture, Royal Danish Academy of Fine Arts

The second panel of the symposium discussed the issue of output/product versus outcome/process. What happens if we substitute the nouns ‘shelter’ and ‘house’ with the verbs ‘sheltering’ and ‘housing’?

Hereby the purpose is not to value one approach higher than the other but to consider the whole spectrum of responses. This means on the one hand introducing softer and process orientated involvements (e.g. technical, financial, social support) in contrast to the provision of buildings, tools and materials.

Nabeel Hamdi started his presentation with a premise:

You cannot decide what to provide, when working in housing and urban development, and in particular in the informal settlements of anywhere, unless you consider what it is you are trying to enable. Which raises two issues:

Firstly, enablement is explicitly a participatory process where all stakeholders are bound to have an impact on the final outcome, which in turn complicates authorship of the final plan or product. This has been seen in

education and in practice to compromise careers. Authorship, particularly for architects, is promoted as key to building careers. Participation is viewed as a process driven by compromise, by lowest common denominator outputs. People are seen to interfere with the architect’s creativity.

Secondly, enablement demands that we broaden our agenda when it comes to housing and everything else in urban development. John Turner once said that what a house *does* (to improve health, generate employment, build dignity, ensure identity, etc.) is equally if not more important to what it *is*. The “does” agenda, which housing enables, is seen as outside of the boundaries of architecture, as promoted today in education and in practice. It demands a multidisciplinary approach to design, which is seen to water down the architect’s role and once again to compromise authorship. Progress in dealing with both the above issues is being addressed, but there is much yet to do in expanding the aspirations of the profession, which starts in training and education.

Yasemin Aysan gave an account of her experience with the debated issue from both her academic as well as professional work.

When she came to Britain after studying architecture in Turkey, she had previously not been confronted with post-disaster reconstruction as an architect. These problems had not been addressed although large parts of Turkey are exposed to disaster risk.

In her view, this poses a dilemma for Turkey and other disaster prone countries where post-disaster recovery and reconstruction is not part of the architectural education. Especially in countries that are affected, the profession of architecture is not involved in these areas of work. Therefore, the importance that architecture schools incorporate these issues into the education of architects and planners needs to be stressed.

Regarding her professional engagement with the International Federation of Red Cross and Red Crescent Societies (IFRC) and UN, Yasemin Aysan noted the requirement of strongly committed local organisations for post-disaster and recovery reconstruction. The external engagement of international

organisations represents only a very small fraction of the reconstruction effort even after major disasters and is also limited to very short time spans (not beyond three to five years).

This problem is met by another challenge: the lack of engagement that organisations can commit itself to a project for financial reasons. Both private and governmental donors want to see quick results, which hinders a process-oriented approach, as it requires a different and longer time frame.

Disaster recovery is usually about trying to emulate a development process in a much shorter time frame. This in consequence typically leads to products and outcomes rather than long-term process.

So you are not practicing architecture? – This is the question that *Rumana Kabir* has received several times, especially from traditional built environment professionals, when trying to explain her work.

The main reason for this being that in Bangladesh working for NGOs or the UN in disaster relief or in post-disaster

reconstruction is not seen as a very prestigious or respectable thing to do, as a majority of the international aid that comes to the country does not go directly to the people in need and therefore the foreign aid is seen as a business opportunity. Professionals in this sector are criticised for making a living out of other people's suffering. Despite this, when she started her career in the disaster management sector, she called herself an aid worker rather than an architect, to facilitate better understanding of her role as an architect in this sector.

In the beginning of her career she worked in post-tsunami reconstruction and the Pakistan earthquake reconstruction for Oxfam and UN-Habitat. The role of an architect in re-building post-disaster housing was not much different than a traditional role of an architect. The clients were the people affected by disasters and they collaborated with them. It was not an easy task, as quarter of a million houses needed rebuilding in Aceh and more than half a million houses needed rebuilding in Pakistan. In a situation like this, where there are not enough resources and technical support available, the best approach to reconstruction is to allow people to decide their future and to consult with them.

All the agencies who were doing tsunami reconstruction faced major challenges and those who were engaging the people and the affected communities more were criticised less. Rumana Kabir discovered this later when she started working as an independent consultant for Arup International Development to document 'Lessons from Aceh' of the thirteen UK agencies tsunami reconstruction projects.

Anyone choosing to work in this sector needs to be aware that it is very demanding and can affect one's personal life and career path, as there is not enough certainty both amongst the UN agencies and the NGOs on when and how the built environment professionals can be used.

Olga Popovic Larsen is an architect and has grown up in reconstructed Skopje. Her view is that Kenzo Tange's Skopje urban plan is more successful than his Railway Interchange. In the latter, the intention was to create an elevated railway combined with a coach station underneath, allowing for buses and trains to function as independent networks. It required a very complex structural solution dealing with train and earthquake vibrations

leading to hugely escalating costs. Perhaps the design would have been appreciated in Japan, but has been criticised for lack of contextual Balkans understanding.

The involvement of local architects is crucial for creating meaningful architecture and reconstruction that is rooted in the cultural context. Her standpoint is that when we try to help we should enable – rather than provide. The process is more important than the product, but some products can facilitate the process. In Skopje, the temporary Scandinavian housing was of higher than usual quality and the houses were constructed on larger plots. Although designed for a 10-year life, most of the houses have been upgraded, extended and are still in use after more than 50 years. It is a unique part of Skopje (Vlae) with housing transformed to the locality and context. The product has enabled the reconstruction process.

An important aspect of her own design and research work focuses on shelters that enable and facilitate meaningful reconstruction processes.

“Planners and engineers need to be valued as creative thinkers and problem solvers, and encouraged to develop outcome-focused solutions and approaches that create resilient communities, rather than being engaged solely in output.”

Jo da Silva, Arup

Summary

As a summary of the panel session it can be said that the built environment plays a critical role in the resilience of a community but design doesn't have to be about designing 'things'. It is about thinking creatively about what the problem is and how best to solve it through understanding the local context, both in terms of physical and social conditions, and it is essential to work with all stakeholders including communities. To summarise the points made by the individual speakers, two key themes can be drawn out that relate to education and engagement.

Firstly, built environment professionals are taught to create objects or products (outputs). Issues of development and humanitarian context are not raised during their education and therefore are not well understood. With limited career prospects in this sector and work being typically undertaken on a pro-bono basis, due to lack of funds, there is limited interest in how to educate built environment professionals to be more aware of how to be an enabler and how to engage with people in order to understand the process. There needs to be a shift away from personal award to creating positive impacts through collaborations. There is a need to

integrate infrastructure into a wider agenda where products are not always the solution but should be a by-product of the enabling process.

Secondly, built environment professions should be valued as creative thinkers and problem solvers and encouraged to develop outcome focused solutions and approaches that create resilient communities rather than being engaged to deliver pre-defined outputs.

Panel Three | *Research and Training, Challenges for Design and Development, Professionals working in the Humanitarian Sector*

Co Convenors

Esther Charlesworth

Professor in the School of Architecture and Design and Director of the Humanitarian Architecture Research Bureau at RMIT University, Melbourne

Rory Hyde

Curator of contemporary architecture and urbanism at the Victoria and Albert Museum in London

Speakers

Camillo Boano

Senior Lecturer at The Bartlett Development Planning Unit, University College London

Esther Charlesworth

Cathrine Brun

Director of the Centre for Development and Emergency Practice, School of Architecture, Oxford Brookes University

Carmen Mendoza

Assistant Director School of Architecture and head of the Urban Design & Planning Department – Universitat Internacional de Catalunya

The third panel session dealt with the challenges for research and training related to professionals working in the humanitarian sector. How do we train and educate and inspire the next generation of architects, landscape architects, engineers and construction managers with the necessary intellectual foundation and practical tools to deal with complex global challenges of our time?

Hereby the focus is not just on disaster but the wider issues of poverty, social marginalisation, internal migration and a world in flux.

Camillo Boano from the Bartlett Development Planning Unit (DPU), University College London, described how the pedagogical approach developed at DPU and specifically in the MSc Building and urban Design in Development aimed to mid career professionals who want to engage in an action oriented learning to design holistic, place-based interventions that tackle conflicting agendas at different urban scales, is based on the assumption that research and training has to have at its core a commitment to knowledge co-production. For the BUDD program contemporary challenges of multiple

forms of urbanism, spatial injustices and complex urban risks, have to be tackled by embracing a new and radical mode of design research. It considers design not as a noun or a set of objects, but rather as a verb and a series of processes that engage with political and social realities. Design, for the BUDD course, must necessarily be collective, embedded, relational and trans-disciplinary.

And so design (architectural and urban) can be seen as a larger cultural enterprise, an impure experience, dealing with the complex nature of people and places, not product and objects. The humanitarian field would benefit a lot from a design practice that is seen as an expanding field rather than being developed in isolation (i.e. just for specialists). Design in such context is a radical alteration of the project of design. The term project here is including the theoretical and practical, the critique and the transformation. This approach highlights power relations at the heart of development and planning, making visible both constraints to transformative change as well as new spaces of possibility. Engagement and situated practice is the key for the ethical approach to research and practice developed in the MSc BUDD.

Esther Charlesworth's focus in this panel was introducing the new RMIT Master of Disaster, Design and Development (MoDDD) degree and how it might provide an international learning platform to enable students to work internationally in the disaster and development fields. Developed in close collaboration with the humanitarian sector, including the International Federation of Red Cross and Red Crescent Societies (IFRC) and UN-Habitat, the degree is intended for those with knowledge and skills in design, built environment, project management, engineering, social sciences, communication or health.

MoDDD is aimed at a broad mid-career student cohort; both to those who have studied or worked in the disaster management or the development sector, as well as those who are seeking a career transition into these fields. The degree is premised on the idea that design can be a transformative tool in dealing with the proliferating global sites of environmental and economic catastrophe; from the charred landscapes of Australian bushfires to the provision of housing and infrastructure needs for the 60 million plus refugees now entering Europe.

See: www.rmit.edu.au/moddd

Cathrine Brun from the Centre for Development and Emergency Practice (CENDEP), Oxford Brookes University, explained how the RIBA Creation from Catastrophe exhibition showed very well the need for the material and the social to come together when we aim to understand processes of creation during and after a disaster. The exhibition indicates the contrast between the governments, the technocrats and the people living in the city, using the city and constituting a major part of the city. This is not a new issue, but as scholars we cannot stop addressing it. In the degree programme, Development and Emergency Practice, at the Centre for Development and Emergency Practice (CENDEP) at Oxford Brookes University this is being addressed in multiple ways such as:

- Linking theory and practice and aiming to bring theory with us into practice when understanding how the material and the social operate together;
- Helping and preparing students who are becoming humanitarian practitioners and researchers to understand and analyse their place among the other actors on the ground;
- Providing techniques to gain insights of the spatial and the temporal contexts: conditions on the ground are never the same



CENDEP's Degree Programs
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from one site to another, but conditions also change over time in one place.

· Strengthening the way knowledge about recovery is produced in order to provide research based teaching through a focus on methodology and knowledge production, by documenting what people do through reflection in- and post action, and through collaborative research with an emphasis on co-production of data and action- research.

For more on these reflections, see CENDEP's blog: "Creation from catastrophe: the need for architects and social scientists to collaborate":

<http://cendep.blogspot.co.uk/2016/04/creationfrom-catastrophe-need-for.html>

How can academia, the researchers as part of universities engage in real-life emergency and development problems? This question was posed by **Carmen Mendoza**, Assistant Director School of Architecture and head of the Urban Design & Planning Department at the Universitat Internacional de Catalunya, who presented the Master of International Cooperation Sustainable Emergency Architecture.

The separate study of the social and physical environments in the careers of architecture and urban design has caused a schism in our understanding of space, place and social order, and therefore through this program UIC intended to change this.

So, although their students come from the built environment, not all their teachers do. The first main objective is to create a seamless research approach that marries both the physical and social realms by eroding the "silo" approach to research. One of the key tasks of the program is to explore a form of interplay between bottom-up community-led and top-down technical methodological approaches in order to transmit to the students' successful interventions in all these topics.

In the Masters program, under the umbrella of international cooperation, there is a link between both emergency architecture, understanding it from shelter to settlements, to urban development. The linkage of urban development and emergency in post-disaster and in post-conflict situations is intended to create a sustainable process. Therefore, design is not the final objective but the process of the design, which has to be

approached in a 'collaborative way' in which the different parties – government, private organisations, NGOs and citizens – all have their own roles and responsibilities. It is necessary that professionals who will be working in these contexts understand that architecture has to have a cultural attachment to the place, as well as the reconstruction process or the upgrading. Architecture must aim to promote the uniqueness of a place, and this is possible only by keeping its culture alive. In order to do so, the approach has to be interdisciplinary, it has to go from the urban to the architectural scale, therefore it is inter-scalar and, it has to be context based in order to create social empowerment. UIC develops many exercises of transferring the social inputs, to physical maps and go from the landscape to the detailed projects.



Temporary Housing in Haiti
© Esther Charlesworth/RMIT University

Summary

In summary, the discussion of Panel 3 addressed the broader question originally posed to the panel:

“How can the next generation of built environment professionals explore how design can be used as a strategic tool to help resolve complex global challenges, including poverty, natural disaster, civil conflict and climate change?”

The panel explored this broad question through identifying different pedagogical models in the disaster management and development academic ‘space’. These include:

1. *Oxford Brookes, Development and Emergency Practice Degrees within CENDEP*
2. *UCL Masters in Building and Urban Design in Development (MSc BUDD)*
3. *UIC Masters in International Cooperation: Sustainable Emergency Architecture (Barcelona).*
4. *RMIT. Master of Disaster, Design and Development (MODDD) degree*

Panel Four | *Stories from the field*

Co Convenors

John Norton

Director and co-founder of Development Workshop France

Speakers

John Norton

Bill Flinn

*Senior Shelter Advisor CARE International,
Shelter Research Associate CENDEP*

Robin Cross

Managing Director, Article 25

In the last panel, the presenters - practitioners working in the humanitarian sector - shared their Stories from the Field. These stories related to many topics that had been touched on in the previous panels leading to the presumption that there is a synergy of thinking amongst the participants about the issue of how to improve the built environment in the context of risk.

John Norton focused on pre-disaster opportunities within the risk environment. This is a neglected area where from 2000 to 2009, only 1% of development aid went to Disaster Risk Reduction (DRR).

globalhumanitarianaid.org

Post disaster interventions are more attractive to the humanitarian professional but it is more important to act before disaster strikes.

Resources for DRR action diminish as they descend from central to local government and finally down to communities. It is recognized that recurring, small-scale disasters most affect poor people, who can expect no support, even from local sources, and so they rebuild as before. Tragically, they actively prepare, in some respects, to be struck in the same way, by the next disaster. And yet, too

many NGOs neglect to build up an in-house capacity, for safe shelter. They often lack any institutional memory in this field, leading to repeated mistakes, and lessons unlearned. DRR takes time to achieve, and its achievements are, to some extent, invisible.

In 1985, Typhoon Cecil caused immense devastation in Vietnam. Four years later, Development Workshop (DW) demonstrated storm resistant building in Vietnam using small public buildings as an example. The proposition to strengthening the houses of the poor with their active involvement was met with derision from local authorities. Now, 30 years later, all stakeholders are convinced that preventive action to make houses safer is achievable and effective. Indeed, Vietnam's standards for low rise building in areas at risk of high winds and floods have now been revised.

How did this change in attitudes come about?

Firstly, DW demonstrated ten key principles of flood and storm resistant construction. Applying these principles adds 15 – 25% to the cost of a house, but is far cheaper than repairing damage. Families contribute to the cost, and take pride in this. Access to

affordable finance is crucial: DW introduced targeted loans for safe construction with a national bank, which is now government policy.

The second key principle is capacity building with measures such as one-day training on safe construction for local builders and education programmes for technicians. Thirdly, raising public awareness using events and various types of media has proven to be crucial in regard to the education for preventive action.

Finally, there is no 'one size fits all' to achieving safe housing. In 2012 DW published its "Atlas of Housing Vulnerability and Strengthening" for the whole of Vietnam followed by local editions.

DW experience in Vietnam shows that to achieve change in DRR takes a long time and requires institutional and staff continuity. It has taken DW 25 years to reach official approbation for an approach based on generic principles of safe construction by families and local builders, principles that are now embodied in Vietnam standards. Several conclusions can be drawn:

- DRR is a multi-stakeholder issue, which requires engagement by all members of

society.

- Achieving change in attitudes on preventive strengthening of buildings takes time.
- DRR actions may take longer than many built expatriate environment professionals are able to commit. On the contrary local staff provide continuity and it is their capacity that needs to be developed.
- Information and knowledge for DRR often does not reach down to the communities who most need it.
- Disaster risk reduction at community level is severely underfunded, and most often depends on families and local builders who need up to date knowledge about safer construction.

Article 25's Managing Director **Robin Cross** talked about the very different environments that the construction professional has to work in across many underdeveloped communities, particularly following disaster events. He compared the structured process of developing architectural projects in the United Kingdom with the very different environment of working with large communities and with often scarce resources. An architect's education often provides little preparation

for such different conditions in which reconstruction takes place.

Furthermore, he noted the importance of professional tools, as they are the architects' greatest assets in working in disaster recovery. Working professionally is vital, because of the greater harm that can be done. Another difference is the architect's role as an enabler and part of a much larger team, rather than the traditional binary relationship between architect and client.

Robin Cross also underlined the significance of various project phases, such as the feasibility study.

In addition, building failures in earthquakes are most often caused by poor standards of design and construction. This is where architects can become part of the solution, through the value of their technical skills.

Bill Flinn, Senior Shelter Advisor CARE International and Shelter Research Associate CENDEP, presented CARE's work in self-recovery after natural disasters – Building Back Safer. He pointed out that there is an increasing

acknowledgment that DRR is a major requirement for coping with emergencies and enhancing community resilience. It makes more sense to protect communities from disasters ahead of time than to wait for them to happen before responding.

As an example of their work after the destruction by Cyclone Sidr in Bangladesh in 2008, CARE built 8,000 houses out of a total need of 500,000. This represents 1.6% of the overall houses required.

One year on, the total number of shelters constructed as an effort of the entire international community was 50,000. This still only represented 10% of the total need. This raises the question: What about the 90%? And the answer is that they self-recover.

Of the self-recovery projects presented by CARE, not one of them has been designed by an architect or built by a contractor. They were all designed and built by families and/or the community.

These are some examples of the self-recovery efforts:

- Padang earthquake, West Sumatra 2009: 3,500 houses were built and every single house is different. All of them have been built with considerable love and as a result with considerable charm.
- Typhoon Haiyan, Philippines 2013: 15,000 houses were built with economic aid, materials and technical assistance by CARE.
- Cyclone Pam, Vanuatu 2015: as only a relatively small amount of funding could be raised, CARE's involvement was limited to technical assistance and the provision of fixing kits and tools to build and rebuild better than before. In some villages up to 85% of the houses had been completely destroyed. Pictures taken within 2-3 weeks after the cyclone.



After Cyclone Pam, Vanuatu 2015
© Bill Flinn / CARE International



After Typhoon Haiyan, Philippines 2013
© Bill Flinn / CARE International



Capacity Building in Myanmar
© John Norton / Development Workshop France

“The spontaneous reconstruction of housing begins extremely rapidly after a disaster ... all action to discourage this process should be avoided”

UNDRO 1982

“Governments, donors and aid agencies must recognize that families and communities drive their own recovery”

Build Back Better principles 2005

“People affected by disaster are not victims; they are the first responders ... and the most critical partners.”

Safer homes, Stronger communities, WB & GFDRR 2010

Summary

The shared experiences of the practitioners in the panel Stories from the Field showed the importance of preventive action, disaster risk reduction at community level, collaborative efforts and local capacity building in disaster affected regions.

Furthermore the local communities in affected regions need to be seen as active collaborators and clients rather than helpless beneficiaries of aid relief. As Bill Flinn highlighted, the vast majority of reconstruction is done by families and local builders and it is this capacity that needs to be developed to achieve safer buildings. Recent experience has shown that cash grants to families for rebuilding is a cost efficient and an important part of achieving a safe environment, linked to developing local knowledge about safe building. This means to create opportunities for capacity building so that the local professional can understand these complex processes as a priority that has to be addressed before disaster strikes. Therefore the co-creation of knowledge, knowledge sharing and translation into local building codes in the affected countries to introduce better and safer construction processes is one of the major challenges of the profession.

Conclusions and Recommendations

Themes from the four panels were brought to the final plenary for discussion. A wide range of views was heard from participants in this stimulating discussion.

The debate around **Panel 1** issues considered that built environment professionals need to change, to enrich their practice to understand (and sometimes drive) multi- and cross-disciplinary action in humanitarian environments. Collaboration, cooperation and new alliances (across and within disciplines) can produce outcomes greater than the sum of their individual parts.

Panel 2 discussed the humanitarian system as organised in sectors - convenient for donors but often driving 'quick win' results that limit impact and create asymmetric 'investment' and separate and segment communities of practice. The system is antithetical to integrated cross disciplinary action required (especially in urban settings), which is increasingly understood as a challenge, and new approaches, methodologies, and practice are emerging.

Discussions from **Panel 3** centred around production of new built environment professionals by academic institutions

increasingly adapting to new demand; the concept of 'liberating authorship' enabling constructive critique that can generate transformation - both at the practice and the learning level. The generation of inter-disciplinary learning is transforming the design-based 'product' industry to meet newer and better utility, sustainability and cultural applicability - therefore drawing social, technical and 'community' aspects into urban based crisis response.

Panel 4 was the voice of experience, whose main theme was the understanding that the survivors and victims of critical events must be considered 'assets' rather than 'beneficiaries' (or liabilities) of external expertise and largesse, in their own recovery and future development.

In concluding debate, there was a return to the main theme: Creativity and Catastrophe - understanding innovation and creativity are not only a visible output, but process, complementarity, alliance, knowledge sharing/transfer can contribute to permanent long term development gain. All demand open space for new ideas, concepts, and practice for architects and other built environment (and many other) professionals.



Dan Lewis and Nabeel Hamdi chairing the final plenary



The following recommendations were proposed at the meeting:

- 1. Promote more programs that give development practice professional status, with specialisations in post disaster reconstruction, for example. This will serve to emphasise the need to integrate disciplines when dealing with post disaster contexts.*
- 2. Look to increase the capacity for local groups and professionals to deal with post disasters, with more learning horizontally between local organisations, and from south to north. This should be coupled with greater professional institutional collaborations, strengthening global professional networks.*
- 3. Formalise this meeting, as a regular policy forum or the like, to give a louder voice to the issues discussed. This could be more integral to RIBA. It might have a dedicated unit advising on education - part of RIBA's educational validation group.*
- 4. Seek out financial support for pro bono work, perhaps encouraging the larger architectural, engineering and other firms under their corporate social responsibility tag to create a fund, and also to sponsor secondments/internships.*
- 5. Draw out lessons based on failures of projects and programs – not just success, and share these more globally through the network - “Getting it wrong is part of getting it right”.*



Impressions from the *Creation and Catastrophe* Symposium

Partners

