Meet the editors of... the International Journal of Disaster Resilience in the Built Environment

An interview with: Professor Dilanthi Amaratunga and Dr Richard Haigh
Interview by: Margaret Adolphus

Professor Dilanthi Amaratunga works at the School of the Built Environment, University of Salford, UK where she leads the University's Centre for Disaster Resilience, responsible for supporting research on disaster management portfolios. She is also the director of international development for the School of the Built Environment.

In this interview

A member of the Royal Institution of Chartered Surveyors (RICS), Dilanthi has managed several international research collaborations in disaster risk reduction and management, presented widely at international conferences, and has led international disaster management workshops and seminars, working actively with the United Nations International Strategy for Disaster Reduction (UNISDR) and the United Nations Expanded Programme (UNDP). She has supervised and supported a wide range of postgraduate research students. To date she has produced over 200 publications, refereed papers and reports, and has made a large number of presentations in around 25 countries. Visit www.dilanthiamaratunga.net for her detailed profile.

Dr Richard Haigh is the programme director of the disaster mitigation and reconstruction master's programme at the School of the Built Environment, University of Salford. He is also an active researcher in the application of disaster risk reduction in the built environment with a particular interest in the reintegration and rehabilitation of conflict-affected communities in Sri Lanka and corporate social responsibility in disaster risk reduction.

Richard was a co-chair of the 2008 Building Education and Research Conference, held in Kandalama, Sri Lanka. The conference focused on the built environment field's role in developing a society's resilience to disasters. He is currently working closely with local government and major stakeholders to reduce the level of disaster risk in the Sri Lankan district of Batticaloa as part of the UNISDR's Resilient Cities campaign. Read more about Richard by visiting his website profile

About the journal

The *International Journal of Disaster Resilience in the Built Environment* (*IJDRBE*) is a new journal, launched in 2010 in Emerald's Built Environment subject collection. It is the only journal to promote research and scholarly activity on the role of building and construction to anticipate and respond to unexpected events that damage or destroy the built environment.

Journal mission

In your first editorial, you state that *IJDRBE*: "... is the only journal to promote research and scholarly activity that examines the role of building and construction to anticipate and respond to unexpected events that damage or destroy the built environment". This is a very precise statement of product positioning. Can you elaborate on this, in particular explaining how the disciplines of disaster management and the built environment interact, what is meant by "disaster resilience", and why this year was an appropriate time to launch a journal?

The new millennium has seen a series of disasters that have increased the degree of uncertainty faced by policymakers, and challenged emergency arrangements. The origins and causes of these disasters have been wide-ranging, but they have reinforced the need to proactively consider disaster risk and increase a community's resilience as a part of the sustainable development agenda.

Naturally-occurring hazards have caused devastating losses to communities around the world. The Bam earthquake (2003), the Indian Ocean tsunami (2004), and Hurricane Katrina in New Orleans (2005) exemplify the far-reaching impact of geo- and hydro-meteorological hazards when they interact with vulnerable populations. In 2009, world leaders' attention was again focused on climate change as they met for the 15th United Nations Climate Change Conference in Copenhagen.

The links between disasters and climate change are increasingly being recognized. There are growing concerns over the threats posed by climatological hazards such as extreme temperatures, drought and wild fires, and the multifaceted threats associated with sea level change. The scale of human contribution to climate change may still be open to debate, but as evidenced in Copenhagen, there is widespread concern from politicians and the public alike over its ability to increase the number and scale of hazards, and the potential for resultant impact on communities worldwide.

Many of the other disasters to affect populations in the last decade are unquestionably of human origin. Conflict in regions such as Darfur, Somalia, and Afghanistan resulted in wars that often match or exceed the losses from any "natural" disaster. Conflict also led to disasters linked to terrorist activity, including New York and Washington (2001), Madrid (2004), London (2005), Bali (2005) and Sri Lanka. It is difficult not to place a military conflict or acts carried out by terrorists within a broader disaster planning context. Technical disasters also have human origins, either caused by accident, negligence or incompetence. Recent media attention surrounding the 25th anniversary of the chemical leak in Bhopal must also remind us that people can continue to be victims of the disaster long after the event itself.

Although the origins and causes of disasters are varied, the consequences to human society are frequently similar: extensive loss of life, particularly among vulnerable members of a community; economic losses, hindering development goals; destruction of the built and natural environment, increasing vulnerability; and, widespread disruption to local institutions and livelihoods, disempowering the local community. Further, as demonstrated by the examples given, hazards are present in developed, newly industrialized and developing countries. The losses to life and the economy – as a percentage of GDP – are far greater in developing and newly industrialized countries, but disasters remain a universal problem.

Statistics on disasters show that the number of disasters is increasing, as are the human and economic losses resulting from them. In recent years there has been growing recognition that the construction industry and built environment professions have a significant role to play in contributing to a society's improved resilience. These views support the calls for a multisectoral and perhaps interdisciplinary approach. It therefore appeared timely to focus the built environment community's attention on what appears to be an ever increasing challenge.

In recognition of the devastating and long-term consequences that can result from a disaster, the term "resilience" has been widely adopted by researchers and policymakers in an attempt to describe the way in which they would like to reduce our society's susceptibility to the threats posed by natural, human and technical hazards.

Definitions of "resilience" are wide-ranging, from a human-centric, "recovering easily and quickly from misfortune or illness", to a more materialistic, "capable of regaining its original shape or position after bending or stretching". The term "resilience" is now widely associated with disaster risk reduction, a conceptual framework that the UNISDR Hyogo Framework for Action 2005-2015 presents as as a way to, "minimize vulnerabilities and disaster risks throughout a society, to avoid or to limit the adverse impacts of hazards, within the broad context of sustainable development". The Hyogo Framework for Action 2005-2015 challenges us to "promote and improve dialogue and cooperation among scientific communities and practitioners working on disaster risk reduction, and encourage partnerships among stakeholders".

The importance of the built environment in the context of a disaster is best illustrated by examining what happens when elements of it are damaged or destroyed. The ability of society to function – economically and socially – is severely disrupted. Disasters have the ability to severely disrupt economic growth and hinder a person's ability to emerge from poverty. The protective characteristics of the built environment offer an important means by which humanity can reduce the risk posed by hazards, thereby preventing a disaster. Conversely, post-disaster, the loss of critical buildings and infrastructure can greatly increase a community's vulnerability to hazards in the future. Finally, the individual and local nature of the built environment, shaped by context, restricts our ability to apply generic mitigation and reconstruction solutions.

The consequences outlined here serve to underline and support the growing recognition that those responsible for the built environment have a vital role to play in effective disaster planning. Therefore, in a built environment context we might describe disaster resilience as to, "design, develop and manage context sensitive buildings, spaces and places, which have the capacity to resist or change in order to reduce hazard vulnerability, and enable society to continue functioning, economically and socially, when subjected to a hazard event".

You also say in this editorial that "Existing publications in the field do not address the whole spectrum of requirements for the built environment community". Can you elaborate on this?

It is important to recognize that the built environment community is, in itself, very diverse. The term "built environment" came into widespread use in the 1990s and although comparatively new, it attempts to describe, in one holistic and integrated concept, the results of human activities. It is typically seen as encompassing the disciplines of architecture, building science and building engineering, construction, landscape, surveying, and urbanism. As such, it is usually described as a field that incorporates a number of separate disciplines with diverse epistemologies from across the spectrum of the arts and sciences. Despite this diversity, they are all concerned with the design, development and management of buildings, spaces and places. We see the journal as providing an important focal point that brings together these disciplines to address a common challenge.

Although there are a number of other disaster-related publications, these tend to have a very broad scope, and are frequently focused on emergency planning, public health and humanitarian implications of disasters. *IJDRBE* acknowledges the wide-ranging means by which the built environment disciplines can contribute to increased resilience: understanding hazard threats to buildings and infrastructure; local and external capacity development; culturally appropriate methods and technologies; hazard resistant materials and technologies; protective infrastructure; retrofitting; response plans, temporary shelter and services; and sustainable development and planning.

You claim that the role of the built environment within the context of disaster management is under-researched as a concept, although evolving. How will you manage the tension between the need to stimulate research and ensure that there is enough quality research to meet the journal publishing cycle?

We have both been working in this field for the last seven years. During that period we noticed a significant increase in the attention given towards the role of the built environment in tackling the challenges posed by hazards of various types. At the same time, the number of disasters reported was also increasing and this trend was deemed likely to continue.

We initially started holding dedicated disaster management streams at major built environment conferences. In 2008 we organized a major international conference in Sri Lanka (BEAR2008: Building Education and Research Conference) that specifically focused on the role of the built environment in helping to reduce the risk of disasters and in any response and reconstruction activities should a disaster occur.

We received a very positive response to these events and it confirmed the need for more research in this area. We also recognized that a lot of research was taking place, but that the knowledge base was very fragmented. As a consequence, we proposed two special issues within existing journals: the *International Journal of Strategic Property Management* and *Disaster Prevention and Management*.

Both received a large number of submissions and we quickly realized that there was a genuine need for a dedicated publication that would bring together various disciplines to address disaster-related issues in a built environment context. We received interest from several publishers, but we were particularly impressed with the response to our proposal from Emerald, which was both enthusiastic and professional.

In terms of ensuring sufficient copy, we see this as a long-term strategy, but were also warned that it is usually difficult to attract a high number of submissions for the early issues. Raising awareness was therefore a priority during the pre-launch phase. The new launch team at Emerald was extremely supportive and we made use of the publisher's large database of contacts.

We approached conference organizers to chair themed sessions that addressed the journal's theme and also delivered seminars on related subjects. The editorial board was very active in promoting the journal and as a consequence we received a high number of submissions from their colleagues and networks.

We posted messages to existing e-mail lists and websites, and published articles in the magazines of professional organizations. In particular, this has resulted in proposals for several themed issues on timely subjects, including research linked to campaigns of the United Nations. These will be guest edited by experts from associated networks and institutions, which should help to attract high quality articles and broaden the authorship in the early issues. We recognize that it will be vital to sustain this effort until the journal has established its place as the first choice publication for research in this field.

You are particularly concerned with theory development, but how will that ensure better response to disasters on the front line?

Making a difference on the front line is naturally what we want to achieve as an end result. We have both seen the devastating effects of major disasters on the ground. Indeed, Dilanthi was in Sri Lanka when the 2004 Indian Ocean tsunami occurred, and both of us have been to regions heavily affected by disasters. However, it is important that what happens in the front line is informed by sound research and evidence; otherwise, policy and programmes designed to help may be misguided. Likewise, the research community plays a vital role in capturing and transferring knowledge to different context.

In terms of ensuring the journal facilitates informed action on the ground, we have employed a number of strategies. First, the editorial board represents a broad cross-section of expertise within the subject area of the journal. We recognize it is important to emphasize vital interdisciplinary linkages and therefore have members from outside the built environment field.

A global presence is important and the board represent this international dimension. We chose a balance of academics and professionals to ensure that theory and practice are both covered. We also encourage the submission of field reports from practice alongside traditional research articles. Hopefully, this will provide an important bridge and encourage those in practice to read the journal.

In addition, as editors we visit a large number of organizations that operate in the field to raise awareness about the journal.

Are there particular areas which you would like to see, or expect to see, collaborate?

The built environment encompasses the disciplines of architecture, building science and building engineering, construction, landscape, surveying, and urbanism. However, if we are to support the calls for a multisectoral and perhaps interdisciplinary approach, then the research must also encourage interdisciplinary collaboration. This includes applied sciences such as civil and mechanical engineering, natural sciences such as mathematics and economics, the arts and humanities such as geography and sociology, and social and creative professions such as management and education.

Editorial objectives

You describe your editorial mix as "academic papers, book reviews, case studies and field studies". What sort of qualities are you looking for in academic papers and case studies?

We recognize that the built environment includes disciplines with diverse epistemologies from across the spectrum of the arts and sciences. As such, we welcome articles that are based on pure theoretical research, as well as highly applied research. Our editorial board and panel of reviewers reflect this diversity and articles are judged according to the accepted standards from those disciplines.

Field reports are not subjected to the usual academic review, but are instead distributed to professionals from the field. We focus on relevance and clarity as the main criteria for inclusion.

How will you ensure dissemination to practice of the journal's research content?

As mentioned previously, the composition of the editorial board, which includes professionals from the field, strong links to international campaigns such as those of the UN, and the inclusion of practice-based field reports, are all intended to encourage links to practice.

Also, if we take a Salford example, we use the journal as a major teaching resource on our MSc disaster mitigation and reconstruction programme, which includes students working in the field.

Publishing issues

What are your plans for the next couple of years – for example, number of volumes/issues per year, special issues, etc.?

We publish three issues per year. We will monitor this in conjunction with the publishers to ensure that the frequency maintains an appropriate balance between timeliness of publication and quality.

We have a number of themed issues planned, including links to major conferences such as those mentioned below. Similarly, we have a number of issues that will be linked to major international initiatives. In particular, we have issues planned in conjunction with UNISDR. These address the UN's global priorities, such as safer schools, safer health-care facilities, and most recently, the Resilient Cities 2010-2011 campaign, which focuses on disaster risk reduction in urban areas.

We are both academic advisers to the UNISDR Resilient Cities campaign and this makes us well placed to raise awareness, and stimulate research that addresses the UN's priorities.

Can you tell us a bit about the collaboration between *IJDRBE* and the RICS' COBRA 2010 Research Conference?

As a leading international professional body for qualifications and standards in land, property and construction, RICS is an ideal way for the journal to provide a bridge between research and practice. In 2009, RICS was represented or had affiliates in more than 146 countries and had a worldwide membership of more than 159,000, including those based in the United Kingdom, Canada, Hong Kong and Australia, the United States and across Europe, Asia, Middle East and North Africa and India.

RICS' COBRA 2010 research conference to be held at Université Paris Dauphine will feature a disaster management stream organized by the Centre for Disaster Resilience at the University of Salford, UK. We have formed an agreement with the Conference organizers to present a best paper award in collaboration with the journal, and also identify high quality papers that may be revised and extended before submission to the journal at a later date. This type of linkage allows us to promote the journal to one of our main target audiences, both to expand the readership and target potential authors.

You have another collaboration going with the International Institute for Infrastructure, Renewal and Reconstruction (IIIRR), a multi-university international consortium (http:www.iiirr.ucalgary.ca). Can you tell us a bit more: is *IJDRBE* the "official' journal for this group?

The IIIRR provides overall leadership in research, education, planning, design and implementation for mitigation of the impact of natural disasters and infrastructure renewal and reconstruction projects in tsunami affected or underdeveloped regions. The consortium includes the University of Moratuwa, University of Peradeniya, University of Ruhuna, University of Stuttgart, Arizona State University, University of South Florida, University of British Columbia, Technische Universitat Dortmund, University of Salford, University of Calgary International Center and the University of Hawaii.

This type of network has members that are likely readers and contributors to the journal. Further, our editorial board and panel of reviewers have representation from many of these institutions. They also hold an annual conference on disaster management. For this year's conference in November, hosted by the University of Hawaii, Manoa, and co-sponsored by the American Society of Civil Engineers we have a similar agreement to the one with COBRA in terms of awards and publication of the best papers.

Final word

Last but not least, can you tell us a bit about your work with the Centre for Disaster Resilience at the University of Salford?

The Centre for Disaster Resilience (www.disaster-resilience.salford.ac.uk) is a centre of excellence for promoting the understanding and practices of disaster management at the University of Salford, UK. Its focus is to promote research and scholarly activity (teaching, research and academic enterprise) that examines the role of building and construction to anticipate and respond to disasters (both man-made and natural) that damage or destroy the built environment, and reflect construction's ongoing responsibility towards built environment's users.

The centre undertakes a full range of styles of research from fundamental theory building to highly applied and widely disseminated and addresses construction industry process, environment and product improvement through integrated solutions. Holistic solutions to real world problems are facilitated by the flow, interaction and creation of knowledge across multidisciplinary groups and networks. The Centre benefits from a number of such networks, which provide a solid platform to further develop and extend the multidisciplinary focus so that we can actively engage and shape national and international communities of practice. This dynamic environment both facilitates the integration of newer researchers into the research community and provides realistic focus and targets.

Publisher's note

Professor Dilanthi Amaratunga and Dr Richard Haigh were interviewed in August 2010.

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