

# A R C O M

ASSOCIATION OF RESEARCHERS IN **CONSTRUCTION MANAGEMENT**

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UWE, Bristol, UK*

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# The Construction of Success



We often assume that success speaks for itself, and that successful outcomes indisputably signal the efficacy of the preceding process and the competences of the actors involved. In the conventional rhetoric, success is always earned and always deserved. But in the complex, uncertain and ambiguous world of non-trivial projects, the relationships between actors, processes and outcomes are not as simple as this. Thus, we need to develop a more realistic understanding of the success phenomenon.

### Some successes are inevitable

There are occasions when success is inevitable (or nearly so). Those occasions include competitions for primacy. In competitions for research grants, some applications will necessarily receive funding; in architectural competitions, one of the entries will win, and in competitions for promotion, someone will fill the vacancy. No matter the contestants, no matter the selection method, and no matter the individuals involved in the competition and the selection, there will be successes to observe and learn from. The problem is, however, that we cannot learn how to write applications for grants, design contracts or jobs. We may all learn to write impeccable applications, and nonetheless only one or a few will be met with success.

### Some successes are incidental

There are occasions when whatever we choose to do the effect will be contingent on things we cannot know, or things we in fact do not know. When this is the case we may act wisely (and successfully carry out what we set out

to do) and yet be met with failure. When uncertainty is real the criteria for judging the behavior, and for judging the outcomes, cannot be the same. We may act so as to maximise the odds of success in the end, but the probability of not succeeding will still exist and often remain large. To succeed under circumstances of uncertainty does depend on our luck.

### Successes are (always) context-sensitive

Projects with similar types of achievements may easily be assessed differently. In a sample of projects all of which were unanimously considered a success by all imaginable stakeholders, none of the projects came in on time, none stayed within budget, and none delivered according to specifications. We deduce from this evidence that the iron triangle is not the supreme judge of success, because the specific context will determine whether it is important or relevant to finish on time etc.

### What are our tasks?

The need for a new understanding of success implies new points of attention and new ways of talking about what we may then discover. The above points are merely illustrations. While success may indeed be earned and deserved, we now know that sometimes success is inevitable, sometimes it is incidental, and always it is context-sensitive. A way of talking about success which will acknowledge all such possibilities will prevent us from learning false lessons from the experience of success, or failure, as the case may be.

*Prof. Kristian Kreiner  
Copenhagen Business School*

*"...sometimes success is inevitable, sometimes it is incidental, and always it is context-sensitive."*

## Editor letter....



Greeting Construction Management Researchers!

The ARCOM Conference 2011 does not seem to be a long while ago, but the next conference is approaching very soon! Several key articles from the last conference: an outline of keynote speaker, workshops, two PhD researches are included in this issue. You will also find a list of the paper awards. I intend to publish several regular features in our newsletter; one is reviews of recent published books. I wish to thank you for all contributors in this issue!!

As always, I would welcome any comments, and am awaiting for your contributions to the newsletter. Please get in touch, by sending e-mail to [R.Soetanto@lboro.ac.uk](mailto:R.Soetanto@lboro.ac.uk)!

*Robby Soetanto*

# Responsible Sourcing



Photo by Nick Rawle Photography  
(www.nickrphotography.com)

*“...responsible sourcing is about managing sustainability objectives through the supply chain...”*

The final day of the ARCOM conference opened with a debate on responsible sourcing, hosted by the APRES network and chaired by Dr Jacqueline Glass of Loughborough University. APRES (Action Programme for Responsible Sourcing) is a joint academic-industry network set up to disseminate information and share knowledge on the responsible sourcing of construction products. It was established with EPSRC funding in response to the UK government's 2008 'Strategy for Sustainable Construction', see: <http://apres.lboro.ac.uk>.

Dr Glass, who manages the APRES Network, explained that responsible sourcing was about managing sustainability objectives through the supply chain; she noted that the government expected the industry to be sourcing 25% of its products through approved responsible sourcing schemes by 2012, and major contractors had issued a policy statement that responsibly-sourced goods would be 'preferred'.

The first of two invited panellists, Dr Miles Watkins, Director of Sustainable Construction at Aggregate Industries, spoke about the challenges faced by business in meeting a demanding standards landscape. He talked about the journey that the company had taken to achieve BES 6001, the framework standard for responsible sourcing developed by BRE Global, and raised concerns about the cost of standards certification.

The second guest speaker, Dr Tony Par-

ry from the University of Nottingham, drew on research on corporate responsibility practices among UK construction and engineering firms to raise a series of questions such as 'who should drive responsible sourcing?', 'what should a company be responsible for?' and 'who should regulate it?'. Dr Parry argued that the construction industry was hindered by an inability to measure its social impacts and challenged the industry to move beyond a 'tick box' approach to sustainability.

The debate then opened up and the discussion soon took on an international dimension, with questions for the panel about purchasing from BRICS countries, such as China and India. Related to this, the issue of economic and political protectionism was raised in the context of procurement of steel in the Australian market. A representative from a major global construction firm also voiced concerns that only a handful of materials suppliers had yet achieved certification.

Dr Glass drew the debate to a close explaining that the APRES network had a pivotal role to play in drawing academics and business together. She invited ARCOM delegates to get involved and announced that the 2<sup>nd</sup> APRES conference will be held in Loughborough on 21-23 November 2012.

Those interested in finding out more can register for free as Associate Members by emailing their details to [apres@lboro.ac.uk](mailto:apres@lboro.ac.uk).

*Dr Jacqui Glass  
Loughborough University*



# Equality and Diversity

This debate session on “Equality and Diversity” took place as part of the annual conference of the Association of Researchers in Construction Management (ARCOM). The session is tied in with the first Professor Dave Langford Memorial Lecture. The late Professor Langford is known for his passion for social justice in the construction industry, and for encouraging early-career researchers to advance in their careers. Delivering the first memorial lecture, Fred Sherratt (formerly a site manager for Laing O’Rourke and currently a lecturer at the University of Bolton) recounted her experiences as a female site manager. Fred noted the importance of promoting the equality and diversity agenda in such a male-dominated industry as construction. However, she argued that what mattered more than privileging certain gender or ethnicity was the recognition of abilities and contributions made by everyone working in the industry. She stressed that barriers to enter the construction labour market such as long working hours and site conditions were equally disparaging for white men as they are to women and ethnic minorities. Fred’s lecture initiated a debate on the relevance and realities of promoting equality and diversity in the construction industry, facilitated by a panel of discussants including Dr. Catherine Hakim (author of *The Power of Erotic Capital*), Professor Christian Koch (Aarhus University, Denmark) and Dr. Paul Chan (University of Manchester, UK), and chaired by Professor David Boyd (Birmingham City University, UK).

Catherine drew from her work on Preference Theory to argue that the low participation rate of women working in the construction industry is not problematic. She explained that women simply do not choose to work in the industry because the structure of the industry and organisation of work is incompatible with the preferences of many women. Christian disagreed and argued for a role for regulation and legislation to encourage industry reform and encourage participation of women and ethnic minorities in the construction labour market. Paul suggested that to focus on gender categories was probably not helpful as such categories are inherently socially divisive. He argued for a need to consider sexuality, an under-explored area, to unveil social practices at the construction workplace. In the open debate, the jury is still out on progress made by the construction industry in terms of developing more equal and diverse workplaces. Some participants believed that the industry has made



great strides in recruiting non-traditional workers into the industry, whilst others consider the agenda of equality and diversity to be futile given the physical nature of construction work. Gaps in the research on equality and diversity in construction were also noted. For instance, it was suggested that the focus on women in construction was merely picking at the proverbial low-hanging fruit, especially given the lack of research into how greater equality and diversity in terms of age and disability can be achieved. Furthermore, the debate considered the possibility of learning from other industry sectors that have relative successes on the equality and diversity front, e.g. the pharmaceutical industry.

*Dr Paul Chan  
University of Manchester*



# Dave Langford Memorial Lecture 2011

## by Fred Sherratt



It was a fantastic opportunity to be able to present the Dave Langford Memorial Lecture on the topic of equality and diversity in construction. When I was working as a construction manager, I was often asked to present my experiences and to encourage people into the industry, especially women, who are significantly under-represented in the workforce. It wasn't hard to impart my enthusiasm for a great industry, where you get to change the world we live in as part of a highly skilled team, albeit through hard work and in challenging environments.

When I entered academia, I found a significant amount of research addressing the lack of equality and diversity in the industry. Research which identified many barriers to entry for women and other minorities to the industry, factors which are felt to make the site environment a highly unwelcoming place. Long working hours, a culture of presenteeism, poor

safety record, bad working conditions and lack of career development are amongst the problems noted. However, in emphasising these problems as a concern of equality and diversity, is the fact that they negatively affect everyone who works in the industry being underemphasised?

The case for equality and diversity makes sense – to get the best people you need to be able to select from the widest potential recruitment pool. However, to get the most ambitious, innovative and dynamic people, whatever their gender or ethnic background, you need to be able to attract and retain them. Construction has fierce competition from other industries who also allow people to demonstrate their creativity and to change the way we live, without making them spend most of their waking hours stood in mud somewhere miles from home. With the current industry culture, the work-life imbalance, wellbeing concerns and little to attract the best, it is arguable that never mind equality and diversity; the UK construction industry is lucky to have the workforce it does!



## PhD Research in Stress Management of Hong Kong Construction Professionals in Mainland China



**U**nder the supervision of Dr. Meiyung LEUNG, Isabelle Yee Shan CHAN has graduated from her PhD study at the Department of Civil and Architectural Engineering, City University of Hong Kong this year. Throughout the past few years, she

has been conducting research in the areas of health, safety, stress, and cultural management targeting construction surveyors, project managers, workers, and general construction professionals in Hong Kong (HK) and Mainland China (MC). In line with the above research studies, she has participated in, supported, and successfully completed a number of research projects, which resulted in 26 international publications in book, journal papers, conference papers in the construction management and engineering.

Isabelle's PhD research mainly focuses on the stress management of Hong Kong construction professionals in Mainland China. Since the start of the recent economic boom in MC, the construction industry there has undergone continuous expansion. There is an increasing number of international construction projects in MC and many construction companies in HK have therefore expanded their business into MC. These have led to an increasing number of HK construction professionals working in MC. Taking up an expatriate assignment in MC involves not only job relocation, but also potentially having to face a language barrier, experiencing difficulties in cooperating with the locals, facing problems arising from different construction standards and systems, poor public security, and so on. All these issues may escalate their stress levels. In addition, due to the misconception that there are a lot of cultural similarities between HK and MC, HK-professionals are often not equipped with effective coping behaviors nor provided with appropriate organizational motivations. Clinical studies have shown that stress has a significant impact on an individual's performance. Hence, this research aims to understand how the performance of HK professionals can be enhanced through stress management. To achieve this aim, three progressive studies were conducted for the adoption of triangulation method, which includes the focus group study, large-scale questionnaire survey, and case studies. Based on the results revealed by the final model, various recommendations were made for individual HK professionals and construction organisations respectively. To further disseminate the study results, papers have been written in the construction engineering and management field.

## PhD Research in Facility Management



**A**ngela Lewis, a PhD student at the University of Reading, is in the final stages of completing her research in facility management, supervised by Dr. Abbas Elmualim. Her focus area within facility management is energy and maintenance management of existing commercial and institutional buildings, outline below.

Review of existing literature found that energy and maintenance management practices are often researched and applied in practice as separate areas of focus. However, as evidenced by current practices, even if the most energy efficient equipment is installed, without proper maintenance, it will not remain energy efficient. Therefore, energy and maintenance management are interdependent. The aim of the research is to test the need for a framework to improving building operations decisions for energy efficiency through the use of case studies, interviews and a questionnaire using an action research method of inquiry and multi-methodological approach.

The framework developed within the PhD thesis links energy and maintenance management decisions for heating, ventilating and air-conditioning (HVAC) systems to help facility managers and others within the built environment transition from reactive to proactive practices to support sustainability and energy efficiency goals.

Through the results of three case studies and the analysis from a questionnaire completed by 168 industry professionals, a framework was developed. The Framework consists of: needs assessment, framework architecture, decision support system, implementation evaluator.

Contributions to knowledge resulting from the research include identifying and documenting the interdependency between energy and maintenance management; documentation of 35 energy, maintenance and human factors best practices and documenting the importance of goal setting and use of goals to support effective energy and maintenance management. Some of the best practices documented include the development of a maintenance plan, regular calibration of sensors and meters, use of metrics for energy and maintenance management decision making, benchmarking energy performance and providing energy and maintenance training.

# ARCOM Paper Awards 2011

## The 'Paul Townsend' Commemorative Award

*'Improving the design process for adaptability: linking feedback and architectural values'*

by Graham Kelly, Robert Schmidt, Andy Dainty and Vicky Story

### Comments by referees

The authors have addressed a long-standing problem; that of reducing the gap between front-end design intent and back-end project outcomes. Therefore, this has the potential for informing better project management practice.

## The 'Rod Howes' Commemorative Award

*'How does change happen in a large construction company: comparing objectified and lived versions of change'*

by Martin Löwstedt, Christine Räisänen and Ann-Charlotte Stenberg

### Comments by referees

The authors investigate the gap between the change intent and lived realities of organisational change. And as the authors point out, this is an under-explored area. The use of longitudinal research methods is also a positive development here. There are synergies between the concepts of organisational change and innovation, hence the recommendation.

## The 'David Langford' Commemorative Award

*'Work-family balance issues among construction professionals in Spain'*

by Elena Navarro-Astor

### Comments by referees

Work-life balance is certainly becoming a more prominent issue in much of the developed world. To distil out the implications of cultural differences on how work-life balance is approached is quite an encouraging development. This also fits in well with the working ethos of the late Professor Langford.



## The CIOB Construction Management Paper Award

*'Sowing the seeds of misunderstanding in the briefing process: a case study of a new hospital project'*

by V. Chandra and M. Loosemore

### Comments by referees

The authors certainly address the very timely issue of "Value" in engaging with the briefing process. The recognition of the importance of social aspects to a technical process is in itself not new. However, by systematically capturing the dynamics of conflicts, the authors have demonstrated how conflicts can yield positive outcomes, particularly at the early stages of the project. This can only serve to strengthen empirical evidence of emphasising socio-technical perspectives of construction management.

## The CIOB Construction Research and Innovation (CRI) Award

*'Who is 'the designer' in construction occupational health and safety?'*

by Helen Lingard, Tracy Cooke and Nick Blismas

### Comments by referees

This is again a timely contribution given ever more complex ways of procuring projects and the relationship between constructors and designers. The work also helps inform policy-makers on the inadequacies of prescriptive notions of roles/responsibilities.



# ARCOM Paper Awards 2011

## The RICS Sustainability Prize

*'Exploring the potential of sustainability action plans within construction projects'*

by Craig S. Thomson and Mohamed El-Haram

### Comments by referees

This paper explicitly investigates the concept of "sustainability". The authors explore the practicability of applying sustainable action plans to a project context; thus there is potential for informing practice in this area.



## The WILEY-BLACKWELL Construction Engineering Award

*'A framework for categorising engineer-to-order construction projects'*

by Jonathan Gosling, Bill Hewlett and Mohamed Naim

### Comments by referees

The paper is recommended for this award, as it has direct relevance to extending our understanding of supply chain management by injecting clarity on engineering sub-categories. This article is also built on previous work (reported in ARCOM as well), which gained the authors a prize previously.



## The Routledge (Taylor & Francis Group) Prize

*'A retrospective analysis of work-related deaths in the Australian construction industry'*

by Tracy Cooke and Helen Lingard

### Comments by referees

A well written paper which provided a good background to the different models provided with brief critical insights into the strengths and weaknesses of each type. Analytical techniques (such as basis for identification of cases) are explicit with informative results. The case example provided usefully illuminates the issues being discussed.

## The Higher Education Academy, Centre for Education in the Built Environment (HEA, CEBE) Prize

*'Review of Construction Safety Research Methods: Integrating Theory and Practice'*

by Patrick X.W. Zou, Riza Yosia Sunindijo, and Andrew Dainty

### Comments by referees

This is a well-written paper that is based on systematic review of the literature on safety research. It helps shed some light on the methodological choices made by our community and offers a naval-gazing opportunity to reflect on the way this sub-field could develop into. This paper also delves into relevant educational issues.





## The Art of Academic Writing: Doctoral workshop goes interactive!



Given ARCOM's principal mission is to develop research capacity in the field of construction management, it is very encouraging to see in excess of 50 doctoral students participate in the first interactive ARCOM doctoral workshop on academic writing. Unlike the typical workshops where doctoral researchers present their work-in-progress and get feedback, the academic writing workshop held in the University of Manchester on Thursday 2 June 2011 was designed to get student participants to go through a mock article review process.

The workshop commenced with a series of presentations aimed at dispelling the myths and clarifying the process of submitting articles to peer-reviewed journals for publication. Professor Will Hughes from the University of Reading (Editor-in-Chief of Construction Management and Economics) explained what constitutes a 'Scientific' paper. In his presentation, Will explored the role of universities, the importance of setting the research within a theoretical framework, and the purpose of academic outputs. Will also provided some critical pointers as to what editors and reviewers search for when deciding whether submissions are publishable or not. These include the logic and coherence of arguments presented, the nature of data used, the design and execution of the research approach, and the formatting of papers.

Professor Christine Räisänen from Chalmers University then traced the origins of the present-day research article, which stemmed from the controversies over Isaac Newton's experiments on light. Christine talked about the importance of conforming to the customs of the discipline in what she termed as 'genres of writ-

ing'. Such customs are critical to note since it initiates the novice researcher into understanding the structure of communicating their research purpose, process and findings. Furthermore, such traditions help illustrate the development of the discipline or field. Christine offered the example from the chemistry discipline, where methodological debates have been resolved such that articles published in chemistry journals tend to contain shorter sections on research methods.

Other contributors included Professor Steve Brown (University of Exeter, Editor-in-Chief of the International Journal of Operations and Production Management) and Bland Tomkinson (University of Manchester, Associate Editor of Higher Education Research and Development). Following the formal presentations, a panel discussion took place with Christine, Will and Bland responding to questions from the audience. Topics discussed included the agenda of impacts of research and the distinction between conceptual review articles and empirical articles. Questions were also raised regarding the choice of journals to publish in the field of construction management, the importance of engaging with mainstream business management and social science disciplines, and the problem of authorship.

Participants then broke out into discussion groups after the formal presentations and lunch. The purpose of the break-out discussions was to get participants to share their experiences of reviewing a real article submitted by Dr. Pernilla Gluch and Professor Christine Räisänen to Building Research and Information. The discussions were very lively, and participants found much congruence between their reviews and the points raised by the actual reviewers. This certainly provided a sense of confidence for many participants. As Ruan Ximing from Robert Gordon University remarked, "I really benefited a lot from this event. I am actually revising a paper for Construction Management and Economics and the mock review discussions have taught me how to respond to reviewers' comments properly." Emmanuel Aboagye-Nimo from Nottingham Trent University also thought that "the level of informality at the workshop has made it easy for new and maybe intimidated researchers such as myself to be able to ask questions and share their thoughts." Fred Sherratt from the University of Bolton summed it up neatly, as she "really liked the way it was a practical session" and that the food was so lovely. It is hoped that more interactive workshops will be planned for the future.

*Dr Paul Chan  
University of Manchester*



## Construction Management Books from 2011

This is a selected list of books produced by construction management researchers in 2011. In order to keep our members up to date with the latest in research-based books, we hope to make this a regular feature.

*Prof. Will Hughes, University of Reading*



**Managing environmentally sustainable innovation: insights from the construction industry** By Bart Bossink, Routledge, London, 2011. ISBN 978-0-415-87971-2, £80.00 (hb)

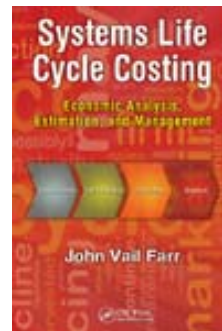
Firms and consumers are aware that they are the cause environmental pollution and depletion of resources and that they are responsible for the consequences. At the same time, awareness is growing that they need to develop appropriate solutions. The idea that sustainable, cyclic businesses are more logical than consumption-oriented and waste-dumping ones seems interesting to a growing number of people. For this change to happen, new thinking and behaviours are needed. Firms and consumers play a central role in a sustainable business. Companies deliver what consumers buy and vice versa. In a sustainable paradigm, companies are able to develop and produce sustainably. Therefore, companies need new management concepts for sustainable investment, manufacturing, logistics and marketing and for sustainable management. Acquainting the reader with the complexities of innovation, as well as the management of environmental sustainability, this book offers guiding principles and a toolbox for the management of environmentally sustainable innovation in construction.



**Integral sustainable design** By Mark DeKay, Routledge, London, 2011. ISBN 978-1-84971-202-6, £32.99 (pb)

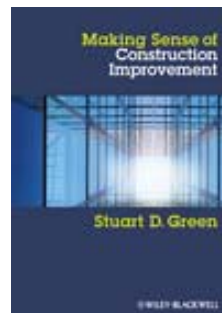
This book offers practical and theoretical tools for effective sustainable design solutions and for communicating sustainable design ideas to diverse stakeholders. DeKay uses "integral theory" to make sense of the many competing ideas in this area and offers a powerful conceptual framework for sustainable designers through the four main perspectives of: behaviours, systems, experiences and cultures. He also uses human developmental theory to reframe sustainable design across four levels of complexity present in society: the traditional, modern, postmodern, and integral waves. With many illustrations and examples, the book offers many conceptual tools including: 12 principles of integral sustainable design, 16 prospects of sustainable design, six perceptual shifts for ecological design thinking, five levels of sustainable design aesthetics and 10 injunctions for designing connections to nature.

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**Systems life cycle costing: economic analysis, estimation and management** By John Vail Farr, CRC Press, Boca Raton, FL, 2011. 316 pp, ISBN 978-1-4398-2891-5, £64 (hb)

Organized around a product development process that provides a framework for the material, the book presents techniques such as engineering economics and simulation-based costing (SBC), with a focus on total life cycle understanding and perspective and introduces techniques for detailed analysis of modern complex systems. The author includes rules of thumb for estimation grouped with the methods, processes, and tools (MPTs) for conducting a detailed engineering buildup for costing. He presents the estimating costing of complex systems and software and then explores concepts such as design to cost (DTC), cost as an independent variable (CAIV), the role of commercial off-the-shelf technology, cost of quality, and the role of project management in LCC management.

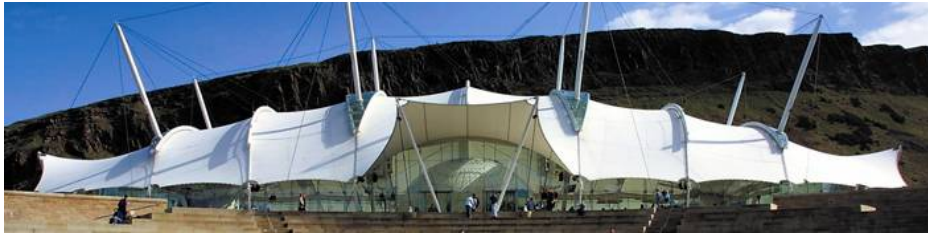


**Making sense of construction improvement** By Stuart Green, Wiley-Blackwell, London, 2011. ISBN 978-1-4051-3046-2, £45.00 (hb)

Green sets out deliberately to challenge current directions in construction management, confronting the assumption that knowledge is uni-dimensional and accumulative. He argues that any understanding of construction management depends upon a critical orientation that does not subjugate understanding to performance.

This book initially sets out the justification for adopting a critical perspective with reference to the broader literature on construction management studies. Current trends in construction management are set in the context of social, economic and political change over the past 30 years. A recurring theme throughout the book is the complex interplay between the espoused managerial rhetoric and the realities of structural change in the construction sector. The discourse of construction management shapes, and is shaped by, the changing reality of the workplace. Linkages are also made to the emergence of the enterprise culture and rhetoric of the global marketplace. Following the development of a critical perspective on construction management as a whole, specific chapters deal with business process re-engineering, lean construction, partnering, collaborative working, performance measurement and the assumed need for culture change.

## 28<sup>th</sup> Annual Conference in the University of Edinburgh, Scotland Mon 3<sup>rd</sup> – Wed 5<sup>th</sup> September 2012



The 28<sup>th</sup> ARCOM conference will be held in Our Dynamic Earth and University of Edinburgh. Our Dynamic Earth is a unique venue for any event and proves to be a very exciting location the conference and our return to Edinburgh after the successful 2004 conference at Heriot-Watt University. The venue is a contemporary museum and exhibition of the history of the planet earth but also contains dedicated conference facilities.

The University of Edinburgh, established in 1582, is one of the largest educational and academic institutions in Scotland with nearly 30,000 students and 3,300 academic staff. Edinburgh – The Festival City, The ‘Athens of the North’ – is one of the most popular destinations in United Kingdom. Visually

stunning and culturally magnificent it provides an ideal backdrop for an academic conference. The city boasts a huge array of attractions – the New and Old Towns are UNESCO World Heritage Sites; the Castle is one the most popular visitor attractions in Scotland and the site of the famous and long established Edinburgh Military Tattoo; its museums and art galleries are world class; and its famous Edinburgh International and Fringe Festivals are now in their seventh decade with the Fringe itself being the largest arts festival of any kind in the world. The Fringe and Book Festivals finish on 27 August 2012, six days before the conference; and the International Festival finish on 2 September 2012, the day before the conference starts, with the famous Festival Fireworks.

For enquiries and information please contact:

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