From the editor ...

Welcome to this Newsletter. As this year draws to a close we reflect on the contributions, it is a pleasure to thank Sue Roaf and Gráinne McGill and the Passive Low Energy Architecture Association for making this Special Edition possible. Called ‘Time, Place and Architecture: The Growth of New Traditions.’ It represents new thinking on a range of issues concerning the design of the built environment. This new issue contains the following articles:

**Introduction:**
Building a New Tradition

**Place, time and architecture:**
The growth of new traditions
Sue Roaf & Gráinne McGill
Pages: 267-271 | DOI: 10.1080/00038628.2018.1502156

Place-Time for Buildings and Cities Standards? Whose standards?
Noel Cass & Elizabeth Shove
Pages: 272-279 | DOI: 10.1080/00038628.2018.1502158

Building performance and end-user interaction in passive solar and low energy housing developments in Scotland
Tim Sharpe, Gráinne McGill, Rosalie Menon & Paul Farren
Pages: 280-291 | DOI: 10.1080/00038628.2018.1502150

Energy sufficiency in buildings, a synonym for passive and low energy architecture (PLEA)
Hugo Santos, Pouya Samani & Eduardo de Oliveira Fernandes
Pages: 292-297 | DOI: 10.1080/00038628.2018.1505332

Social-Ecological-Technical systems in urban planning for a circular economy: an opportunity for horizontal integration
Janneke van der Leer, Arjan van Timmeren & Alexander Wandl
Pages: 298-304 | DOI: 10.1080/00038628.2018.1505598

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**Gráinne McGill**

Gráinne McGill is a Researcher at the Mackintosh Environmental Architecture Research Unit (MEARU), Glasgow School of Art. She is a lecturer and module coordinator for the MSc course in Environmental Design and Analysis in Architecture and is involved in supervision at MSc and PhD level. Gráinne is a Committee Member of the UK Indoor Environments Group and coordinator of the AHRC funded HEMAC network. She is a member of the International Society of IAQ (ISIAQ) and has acted on a number of Scientific Review Committees and chaired sessions at major International Conferences.

**Sue Roaf**

Sue Roaf, (B.A.Hons, A.A. Dipl., PhD, ARB, FRIAS) Emeritus Professor of Architectural Engineering, Heriot Watt University, Edinburgh, is an award winning author, architect and energy pioneer and now sits on the UK Architects Registration Board. Her research covers windcatchers and nomadic architecture in the Near East, Mesopotamian archaeology, solar, low carbon, resilient and sustainable design, thermal comfort and particularly Ecohouse design. Her internationally best-selling books include: Ecohouse: A Design Guide; Adapting Buildings and Cites for Climate Change; Benchmarks for Sustainable Buildings and Adaptive Thermal Comfort. She Chaired PLEA 2017 (www.plea2017.net), Co-Chaired the 2018 Windsor Conference on Adaptive Comfort (www.windsorconference.com) and is Co-Chair of CATE 2019 in April 2019 on Comfort at the Extremes (www.comfortattheextremes.com).

*ASR issues edited or co-edited by Susan Roof: 53.1; 55.1; 56.1; 58.1; 60.3; 61.5*

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**Place, Time and Architecture: The Growth of New Traditions**

In 1940 the Swiss Modernist Sigfried Giedion wrote of his pioneering and influential history that *Space, Time and Architecture* ‘is intended for those who are alarmed by the present state of our culture and anxious to find a way out of the apparent chaos of its contradictory tendencies.’

Eighty years on from the Harvard Lectures he based his book on, many of us are deeply concerned about the huge environmental challenges that already threaten the established order of our lives. ASR 61.5 used some of

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*ASR and Journal Metrics*

ASR is currently Indexed through Scopus.

The link: https://www.scopus.com/sources.uri?zone=TopNavBar&origin=sbrow

Taylor & Francis website (http://www.tandfonline.com/tasr) also gives the number of reads and citations for each paper, as well as information on ‘most read’ and ‘most cited papers’.

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We invite readers to suggest topics, submit book reviews or other material which may be of interest to our readers.

We will consider advertising material. Please contact us at sue.muckle8888@gmail.com
Designing housing decision-support tools for resilient older people
Bev Lorraine James & Kay Saville-Smith
Pages: 305-312 | DOI: 10.1080/00038628.2018.1505597

Thriving in the slums: progressive development and empowerment of the urban poor to achieve secure tenure in the Philippines
Isidoro Malaque III, Katharine Bartsch & Peter Scriven
Pages: 313-318 | DOI: 10.1080/00038628.2018.1502154

Evaluation of the social dimension of sustainability in the built environment in poor rural areas of China
Li Wan & Edward Ng
Pages: 319-326 | DOI: 10.1080/00038628.2018.1505595

Refugee housing through cyclic design
Daniel Fosas, Dima Albadra, Sukumar Natarajan & David A. Coley
Pages: 327-337 | DOI: 10.1080/00038628.2018.1502155

Open windows for natural airflow and environmental noise reduction
Christina E. Mediastika, Luciana Kristanto, Juliana Anggono, Fefen Suhedi & Hariyati Purwiningtih
Pages: 338-348 | DOI: 10.1080/00038628.2018.1502151

Design with voids: how inverted urbanism can increase urban resilience
Rob Roggema
Pages: 349-357 | DOI: 10.1080/00038628.2018.1502153

The role of building operational emulsion in realizing a resilient built environment
Joe Clarke
Pages: 358-361 | DOI: 10.1080/00038628.2018.1502157

The mobility revolution as seen through Norwegian eyes
Harald Nils Raatvik
Pages: 362-366 | DOI: 10.1080/00038628.2018.1502152

We look forward to creating further Special Editions next year from PLEA working from the 2018 conference in Hong Kong with Professor Edward Ng and Prof Square Fong of HK City University and from the ASA Conference in Melbourne with Associate Professor Priyadarsini Rajagopalan.

Abstract: Benjamin Webber

This research explores the architectural implications of co-living in a community house that supports very low-income people. Key findings through design research are developed from disciplinary concerns in the literature and precedents. The key findings include architectural implications of providing for optional interaction and architectural implications from the distinction between individual provision and shared use. Design strategies for co-living are identified and worked through a series of design stages for a design proposition. The design proposition, named Our Big House is a medium density transitional housing project in Wellington, New Zealand.

Architectural implications surface through the development of Our Big House and include spatial separation with gradients, and threshold definition to support optional interaction. What is shared is limited by the sustainable sizing of a community, and this informs architectural planning and major formal moves. This research acknowledges that there are wider issues with housing involving very low-income households. Some of these are mentioned or responded to, such as maintaining social harmony and the organizing of people living together. However the structured content and limited scope of this research focus on architectural design strategies and implications.

Benefits of co-living include increased scales of economy, greater facilities, space efficient density, and opportunities for life-skills to develop. Our Big House for co-living proposes an alternative lifestyle centred on a community that can facilitate these benefits and support transitional living.

Design research will provide valuable knowledge for co-living design, propose several key findings, and exemplify these in the design of Our Big House to address housing for community living and very low-income people in Wellington, New Zealand.

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Please read the papers in ASR 61.5 to discover how researchers around the world are working hard to do just that. You are all invited to join us in Dubai, in April 2019, to also contribute your own solutions to what are undoubtedly some of the biggest challenges of our Age and to a future ASR issue on the conference.

1 ASR issues edited or co-edited by Susan Roof: 53.1; 55.1; 56.1; 58.1; 60.3; 61.5
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Moving on to next year we are looking forward to a Special Edition on Urban Heat brought together by guest editors, **Dr Steve Kardinal Jusuf** Singapore Institute of Technology, **Dr. Marcel Ignatius** National University of Singapore, **Prof Wong Nyuk Hien** National University of Singapore, **Prof Hashem Akbari**, Concordia University. This is an outstanding effort from this team on an important issue concerning the relationship between the architecture and planning of cities and their impact on local environmental quality and their impact on the broader environment impact. Architectural Science is playing an increasing role in this research space and hence this is a welcome addition to ASR.

It is important to note the call for papers for a **new Special Edition, Deadline 31 January 2019**.

Socio-technical approaches to understanding and measuring performance of the built environment, Professor Ning Gu  
School of Art, Architecture and Design  
University of South Australia  
Ning.Gu@unisa.edu.au  
Professor Veronica Soebarto  
School of Architecture and Built Environment  
University of Adelaide  
Veronica.Soebarto@adelaide.edu.au

Please welcome Dr Gráinne McGill, Researcher, Mackintosh Environmental Architecture Research Unit, Glasgow School of Art as an Associate Editor in the area of Building Performance.

Many thanks also to **Diego Arroyo**, Pontificia Universidad Católica de Chile and University of Sydney for his agreement to act as a Book Review Editor.

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It is with sadness that I have heard that Wolf Preiser passed away in August. He has been an esteemed member of the Editorial Board for many years. He will be sorely missed. There is an epilogue by Jacqueline Vischer at https://www.researchgate.net/publication/326742789_Epilogue_From_Building_Evaluation_to_Building_Performance_Evaluation_and_Beyond

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As the world moves into the new millennium an increasingly important question is how humans will thrive and prosper in this new age. One view is that we are entering a remarkable stage in the history of human evolution where humans as a species will dominate the globe altering the way of life and the very existence of all things. Environmentalists are calling it the age of Anthropocene, the age of the humans (Stromberg 2018). The question arises as to how we are going to live in this new world and what are the implications for the building design professions. The book is a central pathway for learning how to live in the Anthropocene (Kress et al 1994).

The aim of the book is ‘to describe a potential starting point for regenerative design in terms of ecological health, and to discuss how this could be used in an urban environment’ (p6).

At the heart of the argument are two notions, the concept of the eco system and regenerative design. An ecosystem is defined as ‘a biological community of interacting organisms and their physical environment.’ (Oxford Dictionary 2018)

Ecology is the study of the interaction of organisms rather than the study of the organism itself. This subtle but important difference has brought forth the need to consider both the degeneration and regenerative in ecosystems and how in the process of architectural design scientific principles can come to bear on the problem. So where there is degradation there is a need to repair the interactions and the conditions that foster these interactions.

This is not a new term often referred to in environmentalism and sustainability literature. Notable authors such as Victor Olgyay in his book on ‘Design with Climate’ which uses as a founding concept that of climate balance, the need to create buildings which respond to local climate conditions. Deeper reading of this work we find that climate is a proxy for ‘nature.’ Olgyay’s concept design as trying to achieve ‘climate balance’ means the interaction of systems of architecture, technology, biology and climatology. One could argue that the work studies the interaction of these systems in a similar way as ecologists discuss the interrelation of biotic systems. At the core to Olgyay’s philosophy is his concern how designers deal with ‘technology’ and the power of mechanical systems to deliver what natural systems can provide arguably more effectively through use of energy, which is non-renewable.

Hence architecture picked up on this as a way of creating a regional architecture, which used a more inclusive definition of architecture, one that integrates natural systems in its discourse. Others have gone further forward, John Lyle in his memorable book on ‘Regenerative design for Sustainable development’ 1993, emphasizes the importance of the nexus between landscape and building, again how to exploit relationships through design thinking. The concept of ‘Regenerative’ means the capability to ‘self renew.’

Later work by Ken Yeang makes this proposition in his books on Eco design such as...

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as the Eco Design: A Manual for Ecodesign 2008, he builds on Olgyay’s argument about how architecture should not be just about technology, ‘gadgets’ as he describes but should embrace a more direct engagement with ecological thinking. His principles of Eco design make for a more inclusive definition of architecture. The point of this short review is to set the ground for the contribution made by the author’s work. Whilst much of the argument for the book is based on the consequences of Anthropocene I would like to reinforce the importance of the book in terms of how it is building on the substantive work of others driving for a more inclusive view of architecture.

The author wishes to redefine Regenerative design ‘seeks to address the continued degradation of ecosystem services by designing and developing the built environment to restore the capacity of ecosystems to function at optimal health for the benefit of both human and non-human life. (p.5.) This definition work is important, as is the focus on cities.

While cities only contribute to a small land area globally they accommodate a significant number of the world’s population. If we take an ecosystem perspective, then five ecosystems are found; Forest, classified according to their climate type as tropical, temperate or boreal; Grassland; Desert; Tundra; and Aquatic, ecosystems and arguably the City forms a new type of ecosystem based on anthropocentric principles. Referring to Bosworth et al., 2011 the author sees one of the root issues is the current anthropocentric view in society. This view has been ‘cemented in westernised cultures over the past 500 years and seeks to understand nature in order to extract as many ‘resources’ as possible for human industry, and to control, exploit or conquer its complexity and diversity rather than work with it’.

The author provides a counter measure to this trend, the process of changes in the political, social and economic milieu that have occurred in the protection and regeneration of these ecosystems. With this has come about thorough reconceptualization of ecosystems in terms of ‘ecosystem services.’ ‘Ecosystem services are the benefits that humans derive, either directly or indirectly, from ecosystems that support human physical, psychological and economic wellbeing (p.108).’

The importance of this is seen in many changes to government policy for example by the Australian Government. ‘We are seeing scientists and policy makers making increasing use of the concept of ecosystem services to describe the mix of productive and non-productive benefits that society obtains from our environment. One of their key messages is that holding on to all these benefits depends very much on how well we look after our unique native plants and animals and the ecological systems that support them. After all, these ecosystems support us. As our environments deteriorate, so do the services they can provide.’ (Department of the Environment, Water, Heritage and the Arts 2009).

Primarily the argument focuses on the need for holism in the design of cities, defining holism around the need for ecological integration in the process of design such as biometrics and governance through ecological conservation and preservation. The author constructs the debate through seven chapters. The first presents the philosophy as an argument for a shift in architectural and urban design of cities as a medium of change. The second argues for integrating biomimicry into regenerative design as the modus operandi. The next chapter builds the argument further examining how environmental biomimicry can provide an approach for adapting cities to climate change and mitigating the causes. The next two chapters discuss processes attributed to this approach. Chapters 5 and 6 deal specifically with the concept of eco system services; this important development in examining ecosystems as a commodity helps ecological integration within a social and economic context and provides designers with the tools to build better arguments. The final two chapters provide case studies of cities from different climates and cultural backgrounds. (Wellington, Havana, Curitiba). Also a reflection is provided on the implications for regenerative design in an ecological context to the evolution of cities and their occupants.

It is a profoundly important book comprising the author’s research and scholarship over many years and which is synthesized with further background in developments in the field.

References


Conference Index

34th PLEA Conference
10 -12 December, 2108
Hong Kong, China

International Conference on Architecture and Civil Engineering 2019
3 January 2019
London, United Kingdom

The 3rd International Conference on Materials Engineering and Nano Sciences (ICMENS 2019)
26th March 2019
Hiroshima, Japan

Comfort at the Extremes Conference
10 -11 April 2019
Heriot-Watt University, Dubai
www.comfortattheextremes.com
with a brilliant line up of invited speakers: https://comfortattheextremes.com/programme/speakers/ and ground-breaking workshops: https://comfortattheextremes.com/programme/workshops/
ASR would like to publish a Special Edition with the theme of developing and applying integrated socio-technological approaches to understanding and measuring the performance of our built environment in order to improve our living experience. This means understanding the ways people are involved with real world events and evolving life styles and how the built environment planning and design respond to these events and changes. ASR has a tradition of working in this research area with some notable papers [1][2][3]. This special edition will build on and extend these and other similar research, with an emphasis to reflect on the emerging technologies and methodologies.

The focus subject areas are as follows.

- Holistic building performance in terms of environmental, design, and related social and cultural aspects;
- Performative, social, design and other integrated indicators for more liveable, sustainable, age-friendly environments;
- Disruptive technologies and smart buildings and cities;
- Building and urban informatics and opportunities with big data;
- New technologies and methods of built environment planning and design for advancing holistic building performance and life styles.

In this Special Edition, we will assemble a range of papers by leading authors and research teams on a wide range of topics that are intimately related to the themes above.

**CALL FOR PAPERS**

The background and rationale for the theme is based on the following two emerging opportunities in the field. Firstly, the emergence of new technologies and innovative methodologies provide alternative ways of conceptualising and conducting building performance research. Secondly, the increasing levels of interdisciplinary collaboration have enabled the broader research communities to work closely together to address grand challenges and to develop much more integrated and comprehensive understandings about building performance and environmental research. To address and improve our overall living experience in the urban and built environment will require systematic, socio-technological approaches to consider and optimize the performance of the built environment from a wide range of perspectives, including from the environmental, design, and related social and cultural areas.

Reflecting on these emerging opportunities, this Special Issue calls for original research and significant critical review from the international research communities, aligning with but not necessarily limited by the specific focus subject areas highlighted above.

**SUBMISSION INSTRUCTIONS**

**Abstract**

Please submit an extended abstract (500-750 words) to Professor Ning Gu (Ning.Gu@unisa.edu.au) and Professor Veronica Soebarto (Veronica.Soebarto@adelaide.edu.au) by December 15, 2018. The abstract should outline the scope, method and results of your original research and should clearly refer to advancing the field in one of the specific subject areas of the Special Issue.

**Invitation for a full paper**

After a positive evaluation of your abstract, we will invite you by January 31, 2019 to submit a full paper to the Special Issue.

**Full paper submission**

Please submit the full paper no later than April 30, 2019. The length of the manuscript should be no more than 6000 word plus illustrations. The paper will be reviewed by selected reviewers in a double blind process as per normal ASR paper reviewing procedure but we will fast track this reviewing process to guarantee publication by the end of 2019 (online). See details of deadlines below. Please see links to the ASR home page for the instructions to authors: [http://www.tandfonline.com/loi/tasr20#V43XqSN968U](http://www.tandfonline.com/loi/tasr20#V43XqSN968U)

**EDITORIAL INFORMATION**

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**Professor Ning Gu**, School of Art, Architecture and Design, University of South Australia

**Professor Veronica Soebarto**, School of Architecture and Built Environment, University of Adelaide

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