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Peter Storkerson

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Current Research in Design

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Architectural Design, 79:4
Jul.–Aug. 2009
Special Issue:
Digital Cities:
issn: 0003–8504
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Digital cities (6–13)
Neil Leach
► Much of our natural environment is based on rule-based behaviours, from the emergent swarm intelligence of flocks of birds and schools of fish, to the complex patterns of snowflakes, ferns, seashells and zebra skins... In this context, it is hardly surprising that architects are now beginning to explore similar principles in the design studio.

Parametricism: a new global style for architecture and urban design (14–23)
Patrik Schumacher
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Experiments in associative urbanism (24–33)
Tom Verebes
► how the Design Research Laboratory (DRL) at the Architectural Association in London has employed a parametric approach to urbanism that investigates how associative design systems can control local dynamic information flows through interactive systems, spaces and interfaces

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Neil Leach
► the medium of film to explore the dark side of the city of angels... how [Hernan Diaz Alonso] went about challenging the conventional masterplan and provoking with his dystopian view

I’ve Heard about ... (a flat, fat, growing urban experiment): extract of neighbourhood protocols (40–45)
François Roche
► Urban models are conventionally planned and intended to control urban systems. François Roche’s vision is to the contrary: it is for an unpredictable organic urbanism. A biostructure develops its own adaptive behaviour, based on growth scripts and open algorithms.

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Neil Leach
► What is the potential for applying digital simulation for research in urban planning and development?
Design Research Quarterly Publication Information

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We solicit your contributions: papers and articles on design research. For information regarding submissions, contact Peter Storkerson, peter@drsq.org
The Design Research Society Conference DRS 2010 is open to the whole range of design disciplines and contemporary inquiries in design. The theme of Design & Complexity should be understood as a springboard for sharing ideas and concepts about contemporary design research.

We propose to the community of design researchers to think and report on complexity as it is encountered in a variety of the designed product, experience or service:

In the conception phase, the complexity of design lies in the many parameters or criteria that shape the designed product, experience or service: technical, ergonomic, aesthetic, cultural, symbolic, economic, etc. Another level of complexity lies in the design processes which respond to complex logics that are not easily put into an axiomatic formula (creative phases, imagination, reflection-in-action, etc). Finally, there is the actors’ dynamic (including the designer) which is the result of the interplay of rhetoric, negotiation, power plays, values, knowledge, ideology, and so on.

When considering the reception of designed products, experience and services, design is faced with understandings of the users that far exceed any single disciplinary model that has been proposed so far, by the likes of cognitive or behavioural sciences, cultural anthropology, microeconomics, semiotics, etc. In the designing disciplines, these models have failed more often than not to be completely relevant to practices. How can we account simultaneously for man as a sensible, emotional, rational, embodied being, requiring a viable material and immaterial world?

The conference encourages submission of papers on topics including, but not limited to:

**Complex problem-Issues:**
- Design and technologies
- Interaction design
- Design process
- Design education
- Design management
- Sociology and anthropology of design
- Users and lifestyles
- Ethical and deontological issues
- Consumption and sustainability
- Service design
- Design and politics

**Complex approaches in design:**
- Research through project
- Reflection-in-action after Schön,
- Participatory approaches
- Design poetics
- Metaphorical/analogical reasoning
- New aesthetic approaches
- Rhetoric in design
- Phenomenology and hermeneutic
- Care in design
- Practical reasoning
- Eco-design and sustainable design
- Pedagogical innovations
- Multidisciplinarity
- Systemic

http://www.drs2010.umontreal.ca/
Cities can be regarded as manifestations of emergent behaviour - not unlike like that of a colony of ants or a flock of birds. Software programs that display a similar emergent logic to cities might lend themselves to the development of a new computational methodology for modelling urban form.

A morphogenetic model of urban design in which matter and form are placed in a dynamic rather than a fixed relationship.

This lively, elegant, personal and welcoming building bodes well for the dozen other public places and performance spaces that the architects will be renovating there over the next few years. The most respectful way to treat historic structures may be to meet them head-on.

This potential that lighting design offers for interactive work, whether it is transforming unwelcoming urban spaces or enhancing the public’s experience of the city.

Whereas once the metropolis alone brought together people, markets, goods, transport and information, the iPhone and similar handheld devices are changing spatial interaction.

Whereas once the metropolis alone brought together people, markets, goods, transport and information, the iPhone and similar handheld devices are changing spatial interaction.

The work of Canadian installation artist An Te Liu who made air-filtration appliances his main subject
"Never mind all that environmental rubbish, get on with your architecture" (24–29)
Penelope Dean
▷ Could the primacy of green architecture in recent years be eroding the discipline? Is it reducing architecture to a mere environmental techno-science?

Meteorological architecture (30–41)
Philippe Rahm
▷ the emergence of a new meteorological architecture, in which the invisible takes precedence over the visible, and the atmospheric, conduction of heat, perspiration and shifting weather and climate conditions are foregrounded

Domestic micro–environments (42–47)
Mathieu Lehanneur
▷ [readdressing] our understanding of domestic spaces through the environmental systems that control and condition them

Breeding the Future (48–53)
Zbigniew Oksiuta
▷ a future of architecture that is biological, as demonstrated by...bioforms that investigate the cultivation of new types of organisms and living biological products outside the confines of natural evolution

When cold air sleeps (54–63)
Sean Lally
▷ climatic conditions open up new potential for organisational and spatial design

Overlooked the day before: the work of Pierre Huyghe (64–69)
Sean Lally
▷ two projects by artist Pierre Huyghe that use the materials and strategies of stage design—lighting, sound, fog and other atmospheric effects—and introduce them into everyday contexts

Energy histories (70–75)
David Gissen
▷ how architectural history might be reshaped by the new focus on energies, which will leave the conventions of the discipline redundant

Energy forms (76–83)
AMID (Cero9): Cristina Díaz Moreno + Efrién García Grinda
▷ a new system for architecture that is founded on a spatial understanding of thermodynamic exchange and environmental systems and effects

The instinctive sense of space and boundary (84–87)
Petra Blaise
▷ how the studio focuses on the boundary of interior and exterior space, adding and subtracting highly tactile and sensuous layers

Potential futures (88–97)
Sean Lally
▷ questioning the notion of the boundary and investigating the realm of materiality associated with energy

AD+ interior eye

Kings Place: Hall One (100–105)
Howard Watson
▷ how, through the inclusion of two small auditoria in the basement of Kings Place in London King’s Cross, Dixon Jones was able to create a true mixture of amenities while responding to the area’s cultural needs and eclipsing its reputation for being less than salubrious

AD+ Practice Profile

Weisz + Yoes (WXY architecture + urban design) (106–113)
Jayne Merkel
▷ changing the face of Times Square and redesigning historic Battery Park at the southern tip of Manhattan

AD+ Building Profile

The Royal Institution (114–119)
David Littlefield
▷ Rethinking of the Royal Institution in Mayfair has led to a rationalisation and redesign that has transformed the premises from a tatty Georgian labyrinth into an airy series of modern spaces.

AD+ Unit factor

Articulating environmental grounds (120–123)
Anne Save de Beaurecueil, Franklin Lee
▷ A new generation of thinking is emerging in the manipulation of ground systems that, with the aid of parametrics, is enabling a new level of design precision and ecological calibration.

AD+ Spiller’s Bits

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AD+ Yeang’s Eco–Files

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AD+ Userscape
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Valentina Croci
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AD+ Site Lines
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Eric Firley
▷ A new compendium... which investigates 30 major housing types from around the world, describes one of the most intriguing examples, situated in the Yemen on the Arabian Peninsula.

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▶ Isotype; Otto Neurath; Gerd Arntz; Vienna; statistics

Furniture, Feminism and the Feminine: Women Designers in Post-war Italy, 1945 to 1970 (243–257)
Catharine Rossi
▶ continuing research into the existence, experience and representation of women designers and architects in post-war Italy

Design in museums: towards an integrative approach: the potential of science and technology museums (259–270)
Maddalena Dalla Mura
▶ design culture; design museums; exhibitions; museum studies; science and technology museums

Review
New books on Le Corbusier (271–284)
Tim Benton
▶ eight recent books on Le Corbusier

Lara Kreigel (285–286)
Deepika Ahlawat

The essential art of African textiles: design without end. Alisa LaGamma, Christine Giuntini (286–288)
Simon Clarke

The design of everyday life. Elizabeth Shove, Matthew Watson, Martin Hand, Jack Ingram (288–290)
Ben Highmore

David Lawrence (290–291)
Alan Powers

The modern interior. Penny Sparke (291–292)
Lesley Hoskins

The grid book. Hannah B. Higgins (293–294)
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Game sound, an introduction to the history, theory, and practice of video game music and sound design. Karen Collins (294–295)
Andrew Blake

Product-service system (327–328)
Rajkumar Roy, David Baxter

A CAD system for service innovation: integrated representation of function, service activity, and product behaviour (367–388)
Tatsunori Hara, Tamio Arai, Yoshiki Shimomura

Developing a service knowledge reuse framework for engineering design (389–411)
Athanasia Doultsinou, Rajkumar Roy, David Baxter, James Gao, Andy Mann

Service representation for capturing and reusing design knowledge in product and service families using object-oriented concepts and an ontology (413–431)
Seungki Moon, Timothy W Simpson, Jun Shu, Soundar R. T Kumara

Product-service system design methodology: from the PSS architecture design to the products specifications (349–366)
Nicolas Maussang, Peggy Zwolinski, Daniel Brissaud

Set-based concept selection in multi-objective problems: optimality versus variability approach (217–242)
Gideon Avigad, Amiram Moshaiov

Modelling and evaluation of product fitness for service life extension (243–265)
Ke Xing, Lee Luong,

Reflecting communication: a key factor for successful collaboration between embodiment design and simulation (265–287)
A. M. Maier, M. Kreimeyer, U. Lindemann, P. J. Clarkson

A knowledge-based system for cost modelling of aircraft gas turbines (289–305)
S. V. Tammineni, A. R. Rao, J. P. Scanlan, P. A. S. Reed, A. J. Keane

Flexibility: a multi-disciplinary literature review and a research agenda for designing flexible engineering systems (307–323)
Joseph H. Saleh, Gregory Mark, Nicole C. Jordan

Mapping the strategic objectives between new product development and product design in Taiwan’s information industry (105–124)
Yen Hsu

An innovative design method for compliant mechanisms combining structural optimisations and designer creativity (5–154)
Masakazu Kobayashi, Shinji Nishiwaki, Kazuhiro Izui, Masataka Yoshimura
The risk in early design method (155–173)
Katie Grantham Lough, Robert Stone, Irem Y. Tumer
▶ probabilistic risk assessment; conceptual design methodology; product design

A gene-engineering-based design method for the innovation of manufactured products (175–193)
Ke-Zhang Chen, Xin-An Feng
▶ gene engineering; product innovation; design theory and methodology

A design recovery framework for mechanical components (195–215)
R. Jill Urbanic, Waguih ElMaraghy
▶ reverse engineering; functional requirements; engineering design; design framework; systems analysis and design

Automated synthesis of electromechanical design configurations from empirical analysis of function to form mapping (83–104)
Tolga Kurtoglu, M. I. Campbell
▶ concept generation; functional synthesis; automated design; graph grammars; design reuse

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Civic concinnity(131–145)
Mark C. Childs
▶ This paper outlines the importance of [the]...relationship between individual acts of design and the collective design of the city, and delineates components of a civic design process.

Architects’ places, users’ places: place meanings at the new central bus station, Tel Aviv (147–161)
Liron Amdur, Marina Epstein-Pliouchtch
▶ When architects interpret the meaning of places using different terms than...users, their ability to instill places with comprehensible meaning is hindered.

An exploration of the effect of housing unit density on aspects of residential landscape sustainability in England (163–187)
Carl Smith, Andy Clayden, Nigel Dunnett
▶ unsustainable loss of gardens, greenspace and tree cover [and]...the effect of housing density on these variables....Total greenspace cover need not decrease with densification....however, the quality of these spaces and their sustainable credentials were seen to be highly variable.

Legibility and aesthetics in urban design (189–202)
Nigel Taylor
▶ a philosophical analysis of two central concepts and ‘principles’ of urban design, namely, ‘legibility’ and ‘aesthetics’, and then an argument about their respective importance for urban design

Urban design as a frame for site readings of heritage landscapes: a case study of Champaner-Pavagadh, Gujarat, India (203–221)
Amita Sinha, Yuthika Sharma
▶ an urban design approach drawing upon Kevin Lynch’s concepts regarding representation of time in place and visual perception of urban form such that cultural heritage landscapes are experienced not as artefacts but as places

Book Reviews
True Urbanism: Living In and Near the Center. Mark L. Hinshaw (223–224)
Mark Childs

Design and Landscape for People—New Approaches to Renewal. Clare Cumberlidge, Lucy Musgrave (225–227)
Bob Jarvis

Rethinking Urban Parks: Public Space and Cultural Diversity. Seitha Low, Dana Taplin, Suzanne Scheld (227–229)
Talja Blokland

Publics nd the City. Kurt Iveson (230–231)
Mahyar Arefi

Designing Australia’s Cities: Culture, Commerce and the City Beautiful, 1900–1930. Robert Freestone (232–235)
Arnis Siksna

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Upcoming Events
Design Conferences Worldwide

Artemis Yagou

2009

30 Aug. - 1 Sep.
Oslo, Norway
Nordic Design Research Conference, NORDES’09: Engaging Artefacts
http://www.nordes.org

2-4 Sep.
London, UK
Designs on eLearning 2009
http://www.designsonelearning.net/index.htm

3-5 Sep.
Hatfield, UK
Writing Design: Design History Society Annual Conference
http://sitem.herts.ac.uk/artdes_research/tvad/writingdesign.html

7-9 Sep.
London, UK
Improving Student Learning for the 21st Century Learner
http://www.brookes.ac.uk/services/ocsld/isl/isl2009/callforpapers.html

9-10 Sep.
Wolverhampton, UK
Retailing and Distribution History: A Conference to Mark 10 Years of CHORD
http://home.wlv.ac.uk/~in6086/2009conf.html

10-11 Sep.
Brighton, UK
Creating a Better World: The 11th International Conference on Engineering and Product Design Education
http://www.epdeo9.org/

17-18 Sep.
Plymouth, UK
Making futures: The Crafts in the Context of Global Sustainability and Environmental Issues
http://makingfutures.pcad.ac.uk

1-3 Oct.
Lisbon, Portugal
IADE Anniversary Conference
http://www.iade.pt

5-7 Oct.
Bloomington, IN USA
ACM SIGDOC 2009
http://www.sigdoc.org/2009/

12-16 October 2009
Istanbul, Turkey
Revitalising Built Environments: Requalifying Old Places for New Uses
http://www.culturespace2009.org

13-16 October 2009
Compiègne, France
DPPI 2009: Designing Pleasurable Products and Interfaces
http://www.utc.fr/dppi09/

19-22 October 2009
Seoul, South Korea
IASDR 2009: Rigor and Relevance in Design
http://www.iasdr2009.org/

26-27 October 2009
Taipei, Taiwan
DeSForM 2009
http://www.desform.org

18-19 November 2009
Melbourne, Australia
Cumulus 38° South
www.cumulus09.com

24-25 November 2009
Helsinki, Finland
The Art of Research: Processes, Results and Contributions
http://www.taik.fi/designresearch/AOR2009

2-4 March 2010
Paris, France
KEER2010: International Conference on Kansei Engineering and Emotion Research
http://www.keer2010.eu

7-9 July 2010
Montréal, Canada
DRS 2010 - Design and Complexity
http://www.drs2010.umontreal.ca/about.php

5-7 October 2009
Lisbon, Portugal
IADE Anniversary Conference
http://www.iade.pt

2-4 March 2010
Paris, France
KEER2010: International Conference on Kansei Engineering and Emotion Research
http://www.keer2010.eu

7-9 July 2010
Montréal, Canada
DRS 2010 - Design and Complexity
http://www.drs2010.umontreal.ca/about.php

12-13 November 2009
Lugano, Switzerland
Swiss Design Network Symposium 2009: Multiple Ways to Design Research
www.multipleways09.ch
The Design Research Society is the multi-disciplinary learned society for the design research community worldwide.

We have an international design research network in around 40 countries comprising members who maintain contact through our publications and activities.

Our members are from diverse backgrounds, not only from the traditional areas of design, ranging from expressive arts to engineering, but also from subjects like psychology and computer science.

We:

- Recognize design as a creative act common to many disciplines
- Understand research and its relationship with education and practice
- Advance the theory and practice of design
- Encourage the development of scholarship and knowledge in design
- Contribute to the development of doctoral education and research training
- Share knowledge across the boundaries of design disciplines
- Facilitate networks to exchange and communicate ideas, experience and research findings among members
- Disseminate research findings
- Promote awareness of design research
- Organise and sponsor conferences, and publish proceedings
- Encourage communications between members internationally
- Respond to consultative documents
- Collaborate with other bodies
- Lobby on behalf of members’ research interests
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- Sponsor e-mail discussion groups and a monthly e-mailed newsletter: Design Research News
- Publish Design Research Quarterly to members.

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www.designresearchsociety.org

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EKSIG is concerned with understanding the nature and role of knowledge in research and practice in order to clarify fundamental principles and practices of using practice in research.

**Design for Health and WellBeing**

The SIG will focus on bringing together designers, design researchers, health professionals and others responsible for the delivery of health care services and products and ‘less traditional’ well being therapies.

**Emotion, Experience and Interaction**

This SiG aims to bring individuals together from a range of disciplines and commercial areas with an interest in the ways that humans experience artefacts to help the design discipline to integrate and reconcile the variety of theoretical and methodological approaches to the subject.

**Design Pedagogy**

The SIG aims to bring together design researchers, teachers and practitioners, and others responsible for the delivery of design education, to clarify and develop the role of design research in providing the theoretical underpinning for design education.

Information:

http://www.designresearchsociety.org

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