# Persistent Modelling
*extending the role of architectural representation*

## SEMINAR & BOOK LAUNCH

marking the publication of the edited book by Phil Ayres
published by Routledge

**2nd May 2012** | **Auditorium 3** | **10am - 4.30pm**
(book launch from 4.30pm)
Kunstakademiets Arkitektskole

### SPEAKERS

PHIL AYRES (CITA)
SARAT BABU (UCL)                          PAUL NICHOLAS (CITA)
MARK BURRY (SIAL, RMIT)                   BRADY PETERS (CITA)
RACHEL CRUISE (Uni. of Sheffield)         MARTIN TAMKE (CITA)
METTE RAMSGARD THOMSEN (CITA)

## CITA
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# Persistent Modelling
## extending the role of architectural representation

This international seminar organised and hosted by CITA, marks the publication of the title *Persistent Modelling* by Routledge, edited by Phil Ayres.

The seminar draws together members of CITA and current CITA collaborators who have contributed to the book, to examine and discuss the relationship between representation and the represented through the notion of *persistent modelling*. This notion is not novel to the activity of architectural design if considered as describing an iterative engagement with design concerns – and evident characteristic of architectural practice. But the persistence in *persistent modelling* can also be understood to apply in other ways, reflecting and anticipating extended roles for representation.

Drawing upon both historical and contemporary perspectives this seminar will discuss ways in which the relation between representation and the represented have, and continue to be, reconsidered. Through the presentations, three principle areas will be identified in which extended roles for representation are becoming apparent within contemporary practices contributing to realisation of the built environment:

    1. the duration of active influence that representation can hold in relation to the represented
    2. the means, methods and media through which representations are constructed and used
    3. what it is that is being represented

In addition, this seminar will provide critical insight into the use of contemporary modelling tools and methods together with an examination of the implications their use has within the territories of architectural design, realisation and experience.

## seminar programme

*1000-1015* | Welcome

*Morning Session*

*1015-1045* | **Phil Ayres** — *Persistent Modelling: reconsidering relations*

*1045-1115* | **Mette Ramsgard Thomsen & Martin Tamke** — *The Active Model*

*1115-1145* | **Brady Peters** — *Design Issues of Time-based Phenomena*

*1145-1215* | **Mark Burry** — *The Persistence of Faith in the Intangible Model*

*1215-1245* | *Summary Discussion*

*1245-1345* | *Lunch*

*Afternoon Session*

*1345-1415* | **Paul Nicholas** — *Persisting with Material*

*1415-1445* | **Sarat Babu** — *Persistent Approaches to Designing Functionally Graded Materials*

*1445-1515* | *Coffee*

*1515-1545* | **Rachel Cruise** — *The Fall*

*1545-1615* | *Summary Discussion (all participants)*

*1630-1800* | *Book Launch & Reception at the Library*

Martin joined the newly founded research centre CITA in 2006, and has helped shape its design led research practice. He has been instrumental in developing research led projects that investigate new design and fabrication tools for wood production, curved & creased surfaces in a variety of materials and fractal systems. These projects have resulted in a series of digitally fabricated speculative probes, prototypes and 1:1 demonstrators.

Martin has taught extensively through workshops at Vienna, Berlin, Barcelona, St. Petersburg, Hamburg, Istanbul, Moscow, Copenhagen and Aarhus.

## Mette Ramsgard Thomsen

Mette Ramsgard Thomsen is an architect working with digital technologies. Through a focus on intelligent programming and ideas of emergence she explores how computational logics can lead to new spatial concepts. Mette's work is practice led and through projects such as How would it be to live in a soft space, Slow Furl, Strange Metabolisms and Vivisection she investigates the relationship between computational design, craft and technology. Her research focuses on Digital Crafting as way of thinking material practice, computation and fabrication as part of architectural culture. Mette Ramsgard Thomsen is Professor at the Royal Academy of Fine Arts, School of Architecture, where she heads the Centre for Information Technology and Architecture (CITA). The centre has been successfully built up over the last 5 years and now includes 14 active researchers and research students.

# speaker biographies

## Phil Ayres

Phil Ayres is an architect, researcher and educator. He joined the ranks at CITA (Centre for Information Technology and Architecture, Royal Academy of Fine Arts, Copenhagen) in 2009 after a decade of teaching and research at the Bartlett School of Architecture in London, and completing his PhD in Denmark at the Aarhus School of Architecture. He has also been a partner of sixteen*(makers) since 1998.

Phil's research explores the potentials that lie at the intersection between digital and material practice with a current focus on free-form metal inflation and developing supporting digital design environments that reconsider familiar relations between representations, models and physical artefact. Much of his research has been exhibited and published internationally.

Phil is also the editor of the title Persistent Modelling – extending the role of architectural representation published by Routledge, 2012.

## Sarat Babu

Sarat Babu is a Research Engineer in Virtual Environments, Imaging and Visualization at the Bartlett School of Graduate Studies. He is also founder and associate of BREAD a London based design and engineering research consultancy. With academic groundings and professional experiences in material science, industrial design and computation his research continues to explore the converging frontier of materials and the creation of objects and structures.

## Mark Burry

Mark Burry is Professor of Innovation (Spatial Information Architecture) and Director of Spatial Information Architecture Laboratory (SIAL) at RMIT University. The laboratory focuses on collocated design research and undergraduate and postgraduate teaching with associated advanced computer applications and the rapid prototyping of ideas. SIAL has a

design-practice emphasis and acts as a creative think-tank accessible to both local and international practices.

Mark is also Founding Director of RMIT's Design Research Institute which brings together researchers from a range of design disciplines and harnesses their collective expertise to address major social and environmental dilemmas.

He is Executive Architect and Researcher to the Temple Sagrada Familia in Barcelona and was awarded the title Il.lustrisim Senyor by the Reial Acadèmia Catalana de Belles Arts de Sant Jordi in recognition of his contribution.

Mark holds various senior positions at academic institutions in Australia, New Zealand and Europe, including Velux Visiting Professor at CITA, Royal Academy of Fine Arts in Copenhagen, Denmark, is a member of the Advisory Board of Gehry Technologies in Los Angeles and was a member of the Australian Research Council College of Experts 2003 – 2007.

In 2006 Mark was awarded the Australian Research Council's most prestigious funding award, a 'Federation Fellowship' for five years.

### Rachel Cruise

Rachel Cruise is a Lecturer in Structural Design at the University of Sheffield, School of Architecture. Her background is both in Architecture and Structural Engineering and her teaching and research explores the relationship between the two disciplines and their approaches to designing with an understanding of the material world.

### Paul Nicholas

Paul Nicholas holds a PhD in Architecture from RMIT University, Melbourne, Australia, and joined the Center for Information Technology and Architecture (CITA) at Kunstakademiets Arkitektskole, Copenhagen, in 2010.

He has a particular interest in the use of computational tools to intersect architectural and engineering design thinking, facilitating new modes of interaction and collaboration. His academic and practice-based work explores this topic in the areas of generative and performance-based design, and the development of low-resolution tools for trans-disciplinary design collaboration.

Paul co-founded the design practice mesne in 2005, and has exhibited in recent Beijing and Venice Biennales.

### Brady Peters

Brady Peters is a PhD Fellow at the Centre for Information Technology and Architecture (CITA) in Copenhagen Denmark. His current research focuses on parametric and computational design strategies and the acoustic performance of complex surfaces. Brady has degrees in architecture from Dalhousie University and in geography from the University of Victoria. He worked for the international architecture practice Foster + Partners as a member of the Specialist Modeling Group (SMG), an internal research and development consultancy. As an Associate Partner with Foster + Partners, Brady worked on many large architectural projects involving complex geometry and helped to establish the office's rapid prototyping capabilities. Brady has also worked in the London office of Buro Happold. He has taught architectural design at the Royal Academy of Fine Arts School of Architecture in Copenhagen, the University of Ghent, the University of Nottingham, and at many SmartGeometry conferences.

### Martin Tamke

Martin Tamke is Associate Professor at the Centre for Information Technology and Architecture (CITA) at the Royal Academy of Fine Arts, School of Architecture in Copenhagen, where he pursues design led research at the interface of computational design and its materialization. After graduating he worked at the Institute of Theory and Design in Architecture (ige) at TU Braunschweig in 2003, where he refined his focus on developing and reflecting upon new strategies for architectural design that are concerned with speculative design and the means of its realization. He has been a key collaborator in numerous projects of varying scales including a 70m organic shaped infrastructural hub in Hamburg developed in partnership with Blunck-Morgen Architects which was awarded Building of the year in 2010.