

CURRICULUM VITAE

CHRISTIAN DERIX

Head of Computational Design Research
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Born

1973 Frankfurt/ Main, Germany

Qualifications

- 2001 MSc Computing & Design, University of East London (UEL), UK (*with Distinction*)
Diploma in Architecture, UeL, UK (*with Distinction*)
- 1999 BSc Architecture, UeL, UK
- 1997 BA architecture, Politecnico di Milano, Italy
- 1993 Abitur (A-levels), Wiesbaden, Germany
- 1990 High School Diploma, California, USA

Academic

Teaching/ Research positions

- 2007 senior lecturer, MSc Adaptive Architecture & Computation, Bartlett School of Graduate Studies
University College London, UK
- 2005 – pres senior lecturer, Algorithmic Architecture, Institute of Architecture and Design,
Technical University Vienna, Austria
- 2001 – pres Researcher and senior lecturer, MSc Computing & Design, co-director of
Centre for Evolutionary Computing in Architecture (CECA),
University of East London, UK
- 2004 - 2005 Research and teaching assistant, Laboratory of Urban Design and Politics,
Polytechnic of Milan, Italy
- 2002 – 2004 Senior lecturer, unit H, School of Architecture & Visual Arts, UeL, UK

Research @ CECA (<http://www.uel.ac.uk/ceca/>)

Research at the Centre for Evolutionary Computing in Architecture (CECA), University of East London, investigates processes of machine learning for architecture. Methods transferred from artificial intelligence and artificial life, such as genetic algorithms, cellular automata, agents modelling and neural networks, are employed to analyse structures of architectural space and aid designers to generate form.

Conferences & papers

- Derox, *Urban Morphology as Computational System*, Simulationsmethoden in der Raumplanung symposium, Vienna, 2008
- Laskari, Derox & Hanna, *Urban Identity Through Quantifiable Spatial Attributes*, Design Computation Cognition (DCC) conference, Atlanta, 2008
- Derox, Gamlesaeter & Miranda, *3d isovists and spatial sensations: two methods and a case study*, EDRA MOVE & SFB TR8 conference on Spatial Cognition, VeraCruz, Mexico, 2008

- Langely, Derix & Coates, *Meta-Cognitive Mappings: Growing Neural Networks for Generative Urbanism*, Generative Arts conference, Milan 2007
- Friedrich, Derix & Hanna, *Emergent Form from Structural Optimisation of the Voronoi Polyhedra Structure*, Generative Arts conference, Milan 2007
- Coates & Derix, *Parsimonious Models of Urban Space*, eCAADe conference, Frankfurt, 2007
- Finucane, Derix & Coates, *Evolving Urban Structures using Computational Optimisation*, Generative Arts conference, Milan 2006
- Coates, Thum & Derix, *The VIPA project - some notes on the pedagogical approach to design education using active 3d worlds*, eCAADe conference, Volos, 2006
- Ireland & Derix, *Emergent Synergetic Structures*, Design Computing & Cognition conference, University of Eindhoven, 2006
- Derix, *Approximating Phenomenological Space*, Intelligent Computing in Engineering and Architecture, Ascona, 2006
- Derix, Lau, Parvin, Pussepp, *Topological Approximations for Spatial Representations*, Generative Arts conference, Milan 2005
- Derix, Raafat, Benoudjit, *Navigation in 3D Space*, Generative Arts conference, Milan, 2004
- Derix, *Building a Synthetic Cogniser*, Design, Computing & Cognition conference DCC, MIT, 2004
- Derix, *Evolving Fractal CA*, Fractals in Architecture & Arts conference FRAAQ, Madrid, 2004
- Coates, Derix & Simon, *Morphogenetic CA*, Generative Arts conference, Milan, 2003
- Derix & Ireland, *Polydimensional Living*, eCAADe conference, Graz, 2003
- Coates, Derix & Simon, *Dust, Plates & Blobs*, Generative Arts conference, Milan, 2001
- Derix & Thum, *self-organizing Space*, Generative Arts conference, Milan, 2000

Articles

- *'Calculated Beauty'*, Architectural Journal, November 11 2007 no 18 vol 226, pp 42-44
- *'Paul Coates e l'architettura generative: Generative Architecture'*, E&F magazine, Spring 2007
- *'Computational Design Process in Architecture'*, Hong Kong Institute of Architecture, April 2006
- *'Designing out Crime'*, Regeneration & Renewal, April 2005
- *'New year wish list'*, Building & Design, January 21 2005, Issue 1657, p. 23
- *'A century of revolution'*, Building & Design, March 18 2005
- *'Taking out the Guesswork'*, Building & Design, December 10 2004, Issue 1654, pp. 20-21

Book Chapters & Editorials

- *'Artificial Learning in Design'*, ed. (with Sean Hanna) of Design, Computation & Cognition conference workshop, upcoming 2008
- *'Evolutionary Design in Practice'*, in 'Space Craft: Advanced in Architectural Computing', ed. David Littlefield, RIBA publications, March 2008
- *'Approximating Phenomenological Space'*, in Intelligent Computing in Engineering and Architecture: Lecture Notes on Computer Science, Springer, Heidelberg, 2007

Professional

Joint Head of the Aedas Architects Research & Development (R&D) Group

Head of Computational Design Research

Aedas Architects, London

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Selected Projects

- *Smart Solutions for Spatial Planning*, UrbanBuzz (HEFCE funded project): lead designer for building computational models of sustainable urban planning
- *VITA* (in collaboration with Massimo Mariani architect): design of modular furniture and computational configuration program with on-line interface, for MDF Italia
- *World Trade Centre Memorial Museum*, New York (in collaboration with DavisBrodyBond – Aedas, NY): develop software and methods for volumetric visual perception analysis of architectural space
- *Prishtina ENK*, Kosovo (in collaboration with 4M Group): masterplan massing optimization and façade design
- *Mason Hall Student Accommodation*: environmental analysis and data interpretation of facades panelling
- *Edinburgh Haymarket Interchange*: development of codes for conceptual massing and traffic analysis of train station expansion

Editor & co-founder of NOUS Gallery

NOUS Gallery

London King's Cross

www.nousgallery.com

Exhibitions

- *Hidden Space*, exhibition by Centre for Evolutionary Computing in Architecture (CECA) and Ecologic Studio, October 2007
- *Residue*, exhibition by SmallArchitecture (Tom Modeen & Paul Brady), April 2008
- *Urbantine*, exhibition of Urbantine Competition by TENT London, September 2008

Previous activities

- 2006 concept generation for Zaha Hadid architects, Piper Heidsieck competition, Reims
- 2005 computational design consultant, 4M studio, London, UK:
masterplan for Prishtina Central
- 2002 assistant architect, Steven Rich Architects, London, UK
January – October 2002 services to Steven Rich Architects
included RIBA phase A – F design on the new UEL Docklands
Campus, School of Architecture & Visual Arts building.
- 1996 work placement, Gehrmann Consult Architects, Wiesbaden,
Germany. Collaborating on the *Neue Wache* building for Berlin with I.M. Pei
architects.
- 1995 glass restoration at Studio Forme, Rome, Italy. Restoration of stained glass of Orvieto
cathedral.
- 1994 glass fusion works for Californian artist Narcissus Quagliata, San Francisco, USA.
Production of several large glass fused installations installed in the USA and Mexico