bibliography

- Abel, Chris (2004) Architecture, Technology and Process, London: Architectural Press.
- Addington, D. Michelle and Schodek, Daniel L. (2005) Smart Materials and New Technologies: For the Architecture and Design Professions, London: Architectural Press.
- Adorno, Theodor (1978) *Minima Moralia: Reflections from a Damaged Life*, trans. E.F.N. Jephcott, London: Verso.
- Adorno, Theodor (1998) *Beethoven: The Philosophy of Music*, ed. R. Tiedemann, trans. E.F.N. Jephcott, Cambridge: Polity.
- Adorno, Theodor W. and Horkheimer, M. ([1947] 1999) Dialectic of the Enlightenment, trans.

 J. Cumming, London: Verso.
- Alexander, Christopher ([1964] 1994) Notes on the Synthesis of Form, Cambridge, MA: Harvard University Press.
- Alexander, Christopher, and Poyner, B. (1970) 'The Atoms of Environmental Structure' in Design Methods Group, Emerging Methods in Environmental Design and Planning, Cambridge, MA: MIT Press.
- Andreotti, Libero and Costa, Xavier (eds) (1996) *Theory of the Derive and Other Situationist Writings on the City*, Barcelona: ACTAR.
- Aragon, L. (1979) Paysan de Paris, Paris: Editions Gallimard.
- Architectural Association Projects Review 01/02, Architectural Association, London.

- Ascott, Roy (1995) 'The Architecture of Cyberception', in *Architects in Cyberspace*, London: Academy Editions.
- Balmond, Cecil (1997) 'New Structure and the Informal', in Maggie Toy (ed.) New Science = New Architecture, London: The Academy Group.
- Batty, Michael and Longley, Paul (1997) *The Fractal City,* Architectural Design Profile No. 129, London: Academy Group Ltd.
- Benedikt, Michael (ed.) (1992) Cyberspace: First Steps, Cambridge, MA: MIT Press.
- Bernstein, Richard J. (ed.) (1985) 'Neoconservative Culture Criticism', in *Habermas and Modernity*, Cambridge: Polity.
- Botsford, Gianni (1998) in John Frazer, unpublished manuscript, property of John Frazer.
- Bouman, Ole (1996) RealSpace in QuickTimes: Architecture and Digitisation, Rotterdam: NAi.
- Breton, André ([1928] 1964) Nadja, Paris: Editions Gallimard.
- Burger, Peter (1974) *Theory of the Avant-Garde*, trans. Michael Shaw, Minneapolis: University of Minnesota Press.
- Callicot, Nick (2001) Computer-Aided Manufacture in Architecture: The Pursuit of Novelty, Oxford: Architectural Press.
- Carson, Rachel (1962) Silent Spring, Cambridge, MA: Houghton Mifflin.
- Castells, Manuel (1996) The Informational City, Oxford: Blackwell.
- Catanese, Anthony James and Steiss, Alan Walter (1972) Systemic Planning: Theory and Application, Lexington, MA: Lexington Books.
- Chaplin, Sarah (1997) 'Report to Virtual HQ: The Distributed City', *The Journal of Architecture*, 2(1), Spring.
- Chu, Karl (2006) 'Metaphysics of Genetic Architecture and Computation', in *AD Programming Cultures*, 76(4), July/August.
- Clark, Caleb John (1994) in Nick Dargahi and Michael Bremer (eds), SimCity 2000, Berkeley, CA: Prima Publishing.
- Constant (1964) 'New Babylon: An Urbanism of the Future', AD, June, London: Academy Editions.
- Constant (1996) in Libero Andreotti and Xavier Costa (eds) *Theory of the Derive, and Other Situationist Writings on the City,* Barcelona: Museu d'Art Contemporani de Barcelona.
- Coyne, Richard (1995) Designing Information Technology in the Postmodern Age, Cambridge, MA: MIT Press.

- Coyne, Richard (1999) Technoromanticism, Cambridge, MA: MIT Press.
- Debord, Guy (1973) Society of the Spectacle, Detroit: Black and Red.
- De La Barra, Tomas and Rickaby, Peter A. (1987) 'A Hierarchical Land Use and Transport Model for Energy Evaluation', in *Energy and Built Form*, London: Butterworths.
- Deleuze, Gilles (1993) 'The Fold: Leibniz and the Baroque', trans. Tom Conlet, in *Folding in Architecture*, AD Design Profile 102, London: Academy Group.
- Descartes, René (1850) Discourse on the Method of Rightly Conducting the Reason and Seeking the Truth in the Sciences, trans, John Veitch. London: Marshall & Co.
- Design Methods Group (1970) Emerging Methods in Environmental Design and Planning, ed. G.T. Moore, Cambridge, MA: MIT Press.
- Dyson, Freeman (1999) Origins of Life, Cambridge: Cambridge University Press.
- Echenique, Marcial (1971) 'The City Scale', in Lionel March, Marcial Echenique and Peter Dickens (eds) *Polemic for a Structural Revolution, Architectural Design,* May.
- Eisenman, Peter (1997) in R.E. Somol (ed.) *Autonomy and Ideology: Positioning an Avant-garde in America*, New York: Monacelli.
- Engeli, Maia (2001) Bits and Spaces: Architecture and Computing for Physical, Virtual, Hybrid Realms: 33 Projects by Architecture and CAAD, ed. ETH Zurich, Basel: Birkhauser.
- Farmer, John (1999) The Green Shift, ed. Kenneth Richardson, Oxford: Architectural Press.
- Flachbart, Georg and Weibel, Peter (2005) Disappearing Architecture: From Real to Virtual to Quantum, Basel: Birkhauser.
- Ford, Brian and Hewitt, Mark (2006) 'Cooling without Air-conditioning: Lessons from India', Architectural Research Quarterly, Summer.
- Franken, Bernhard (2001) 'DynaForm BMW Frankfurt Motorshow 2001 Pavilion', in Yu-Tung Liu (ed.) *Defining Digital Architecture*, Basel: Birkhauser.
- Frazer, John (1993) interview with John Frazer, by Brian Hatton, Lotus 79, Milan: Elemond Spa.
- Frazer, John (1995) An Evolutionary Architecture, Architectural Association Publications, Themes VII, download from: www.aaschool.ac.uk/publications/ea/intro/html.
- Frazer, John (1998) Unpublished manuscript on The Groningen Experiment, property of author.
- Frazer, John and Frazer, Julia (1998) 'The Groningen Experiment', in *Architects in Cyberspace 2*, AD, London: Academy Editions.
- Garreau, Joel (1991) Edge City, New York: Anchor Books.
- Geddes, Patrick (1997) Cities in Evolution, London: Routledge.

- Grabow, Stephen (1983) Christopher Alexander: The Search for a New Paradigm in Architecture, Stocksfield: Oriel Press.
- Graham, Stephen and Marvin, Simon (1998) *The Richness of Cities: Urban Policy in a New Landscape*, London: Comedia & Demos.
- Gibson, William (2000) 'Johnny Mnemonic', in Burning Chrome, London: Voyager.
- Girardet, Herbert (2004) Cities, People, Planet, Chichester: Wiley-Academy.
- Gould, I.H. (1966) 'Some Limitations of Computer-Aided Design', Computer Bulletin 10(3), December.
- Greenberg, Clement (1965) 'Modernist Painting', Art and Literature, 4, Spring.
- Gregory, Paola (2003) New Scapes: Territories of Complexity, Preface by Antonino Saggio, Basel: Birkhauser.
- Gropius, Walter (1956) Scope of Total Architecture, London: George Allen and Unwin Ltd.
- Guallart, Vicente, Mukller, Willy and Capelli, Lucas (eds) (2006) Self-Sufficient Housing, IAAC 1st Advanced Architecture Contest, Barcelona: Actar Pro.
- Habermas, Jürgen (1985) 'Neoconservative Culture Criticism', in *Habermas and Modernity*, ed. Richard Bernstein, Cambridge: Polity.
- Hawkes, Dean (1970a) *The Environmental Evaluation of Buildings: Explorations,* Working Paper No. 30, University of Cambridge Department of Architecture, Cambridge.
- Hawkes, Dean (1970b) The Use of an Evaluative Model in Architectural Design: Case Studies, Working Paper No. 31, University of Cambridge Department of Architecture, Cambridge.
- Hawkes, Dean, Owers, Janet, Rickaby, Peter and Steadman, Philip (1987) *Energy and Urban Built Form*, London: Butterworths.
- Hawkes, Dean and Stibbs, Richard (1970a) *The Environmental Evaluation of Buildings:* 2. *Technical Specification of the Model*, Working Paper No. 27, University of Cambridge Department of Architecture, Cambridge
- Hawkes, Dean and Stibbs, Richard (1970b) *The Environmental Evaluation of Buildings*: 3. *A Worked Example*, Working Paper No. 28, University of Cambridge Department of Architecture, Cambridge.
- Hawkes, Dean and Richard Stibbs (1971) *The Environmental Evaluation of Buildings:* 1. *A Mathematical Model*, 3rd edn, Working Paper No. 15, University of Cambridge Department of Architecture, Cambridge.
- Hensel, Michael (2004) 'Finding Exotic Form', *Emergence: Morphogenetic Design Strategies*, Architectural Design, 24(3) May/June.

- Hensel, Michael and Menges, Achim (2006) 'Differentiation and Performance: Multi-Performance Architectures and Modulated Environments', in *Techniques and Technologies in Morphogenetic Design, Architectural Design*, 76(2), March/April.
- Hewitt, Mark (2004) Unpublished paper, property of author.
- Hillier, Bill (2007) 'The Common Language of Space', available at: www.spacesyntax.org/ publications/commonlang.tml
- Hillier, Bill and Hanson, Julienne (1984) *The Social Logic of Space*, Cambridge: Cambridge University Press.
- Horan, Thomas A. (2000) *Digital Places: Building Our City of Bits*, Washington, DC: Uli, The Urban Land Institute.
- Hughes, Robert (1980) The Shock of the New: Art and the Century of Change, London: BBC.
- Imperiale, Alicia (2000) New Flatness: Surface Tension in Digital Architecture, Basel: Birkhauser.
- Ishii, Hiroshi and Ullmer, Brygg (1997) Tangible Bits: Towards Seamless Interfaces between People, Bits and Atoms, Proceedings of CHI '97, 22–27 March.
- Ishii, Hiroshi, Underkoffler, John, Chak, Dan, Piper, Ben, Ben-Joseph, Eran, Yeung, Luke and Zahra, Kanji (2002) *Augmented Urban Planning Workbench: Overlaying Drawings, Physical Models and Digital Simulation*, Proceedings of IEEE and ACM ISMAR 2002, September 30–October 1
- Johnson, Philip (1997) in R.E. Somol (ed.) Autonomy and Ideology, New York: Monacelli.
- Kelly, Kevin (1994) Out of Control, London: Fourth Estate.
- Kolarevic, Branko (2003) Architecture in the Digital Age: Design and Manufacturing, London: Spon Press.
- Kolarevic, Branko and Malkawi, Ali (2005) Performative Architecture, Abingdon: Taylor & Francis.
- Kwinter, Sanford (1993) 'The Genius of Matter: Eisenman's Cincinatti Project', in *Re-Working Eisenman*, London: Academy Group.
- Lalvani, Haresh (2006) 'The Milgo Experiment: An Interview with Haresh Lalvani', John Lobell in Programming Cultures, Architectural Design, 76(4).
- Landau, Royston (1984) 'A Philosophy of Enabling', in *Cedric Price*, AA Works II, London: Architectural Association.
- Latham, Robert and Sassen, Saskia (eds) (2005) *Digital Formations: IT and New Architectures in the Global Realm*, Princeton, NJ: Princeton University Press.
- Leach, Neil, Turnbull, David and Williams, Chris (eds) (2004) Digital Tectonics, Chichester: Wiley-Academy.

Le Corbusier (1986) Towards a New Architecture, New York: Dover Publications, Inc.

Lefebvre, Henri (1991) The Production of Space, trans. Donald Nicholson-Smith, Oxford: Blackwell.

Lefebvre, Henri (1996) Writings on Cities, trans. Eleonore Kofman and Elizabeth Lebas, Oxford: Blackwell.

Lefebvre, Henri (1999) in R. Sheilds, Lefebvre, Love and Struggle: Spatial Dialectics, London: Routledge.

Lindsey, Bruce (2001) Digital Gehry: Material Resistance, Digital Construction, Basel: Birkhauser.

Liu, Yu-Tung (ed.) (2001) Defining Digital Architecture, Basel: Birkhauser,

Lynn, Greg (1998) Folds, Bodies and Blobs, Brussels: Books-By-Architects.

Lynn, Greg (2006) interview with Ingebord M. Rocker, in *Programming Cultures, Architectural Design* 76(4), July/August

Lynn, Greg and Rashid, Hani (2002) Architectural Laboratories, Rotterdam: NAi Publishers.

Malkawi, Ali (2005) 'Performance Simulation: Research and Tools', in Branko Kolarevic and Ali Malkawi (eds) *Performative Architecture*, Abingdon: Taylor & Francis.

March, Lionel (ed.) (1976) The Architecture of Form, Cambridge: Cambridge University Press.

March, Lionel and Steadman, Ralph (eds) (1971) The Geometry of Environment, London: RIBA Publications.

Martin, Leslie and March, Lionel (eds) (1972) Speculations: Urban Space and Structures, Cambridge: Cambridge University Press.

McCullough, Malcolm (2004) Digital Ground: Architecture, Pervasive Computing, and Environmental Knowing, Cambridge, MA: MIT Press.

McCullough, Malcolm (2006) '20 Years of Scripted Space', *Programming Cultures, Architectural Design*, 76(4) July/August.

McHarg, Ian ([1967] 1992) Design with Nature, Chichester: John Wiley & Sons Ltd.

Mitchell, William J. (1995) City of Bits: Space, Place, and the Infobahn, Cambridge, MA: MIT Press.

Mitchell, William J. (1999) e-topia, Cambridge, MA: MIT Press.

Mitchell, William J. and McCullough, Malcolm (1995) *Digital Design Media*, New York: Van Nostrand Reinhold.

Negroponte, Nicholas (1972) The Architecture Machine, Cambridge, MA: MIT Press.

Negroponte, Nicholas (ed.) (1975) Reflections on Computer Aids to Design and Architecture, New York: Petrocelli/Charter.

- Novak, Marcus (1998) 'Next Babylon, Soft Babylon', Architects in Cyberspace, Architectural Design, 68(11/12), Nov/Dec.
- Ockman, Joan (1997) in R.E. Somol (ed.) Autonomy and Ideology, New York: Monacelli.
- Owens, Susan (1987) 'The Urban Future: Does Energy Really Matter?' in *Energy and Built Form*, London: Butterworths.
- Palumbo, Maria Luisa (2000) New Wombs: Electronic Bodies and Architectural Disorders, Basel: Birkhauser.
- Penz, François (ed.) (1992) Computers in Architecture: Tools for Design, Harlow: Longman.
- Poggioli, Renato (1968) *The Theory of the Avant-Garde*, trans. Gerald Fitzgerald, Cambridge, MA: Belknap Press of Harvard University Press.
- Powell, Robert (1999) Rethinking the Skyscraper, London: Thames and Hudson.
- Rahim, Ali (2005) Architecture and Digital Design, Abingdon: Taylor & Francis.
- Rifkin, Jeremy (1998) The Biotech Century, London: Phoenix/Orion Books Ltd.
- Robbe-Grillet, Alain (1965) 'On Some Outdated Notions', in *Snapshots and Towards a New Novel*, trans. Barbara Wright, London: Calder & Boyars.
- Rocker, Ingebord (2002) Versioning, in Christopher Sharples, Kimberly Holden, Greg Pasquarelli et al. (eds) Architectural Design, 72(5).
- Rogers, Richard (1995) 'Turbine Tower', in *Richard Rogers*, GA Document Extra 02, A.D.A. Tokyo: EDITA.
- Rosa, Joseph (2003) Next Generation Architecture: Contemporary Digital Experimentation + The Radical Avant-garde, London: Thames and Hudson.
- Rowe, Colin (1997) in R.E. Somol (ed.) Autonomy and Ideology, New York: Monacelli.
- Rydin, Y. (1998) Urban and Environmental Planning in the UK, London: Macmillan.
- Sadler, Simon (2001) The Situationist City, Cambridge, MA: MIT Press.
- Sassen, Saskia (1994) Cities in a World Economy, Thousand Oaks, CA: Pine Forge Press.
- Schmal, Peter Cachola (ed.) (2001) Digital Real: Blobmeister, First Built Projects, Basel: Birkhauser.
- Schumacher, Patrick (2004) Digital Hadid: Landscapes in Motion, Basel: Birkhauser.
- Schumacher, Patrick and Steele, Brett (2002) 'Design Research Lab', in *Projects Review 01/02*, London: Architectural Association.

Sharples, Christopher, Kimberly Holden, Greg Pasquarelli et al. (eds) (2002) Versioning, Architectural Design, 72(5).

Sheilds, Rob (1999) Lefebvre, Love and Struggle: Spatial Dialectics, London: Routledge.

Somol, R.E. (ed.) (1997) *Autonomy and Ideology: Positioning an Avant-garde in America,* New York: Monacelli.

Spiller, Neil (ed.) (1998a) Architects in Cyberspace, 68(11/12), London: Academy Editions.

Spiller, Neil (1998b) Digital Dreams: Architecture and the New Alchemic Technologies, ed. Annie Bridges, London: Ellipsis.

Spiller, Neil (2007) Visionary Architecture, London: Thames and Hudson.

Spuybroek, Lars (1998) 'Architects in Cyberspace', Architectural Design, 68(11/12).

Steadman, Philip (1979) The Evolution of Designs, Cambridge: Cambridge University Press.

Steele, Brett (2005) Corporate Fields, AA DRL Documents 1, Barcelona: Bookprint SL.

Steele, James (2001) Architecture and Computers, London: Laurence King.

Steemers, Koen (ed.) (1997) *Project ZED: Towards Zero Emission Urban Development*, Cambridge: The Martin Centre, Department of Architecture, University of Cambridge.

Tafuri, Manfredo ([1975] 1976) *Architecture and Utopia*, trans. Barbara Luigia La Penta, Cambridge, MA: MIT Press.

Tafuri, Manfredo ([1968] 1980) *Theories and History of Architecture*, trans. Giorgio Verrecchial, London: Granada.

Tafuri, Manfredo ([1980] 1987) *The Sphere and the Labyrinth*, trans. Pellegrino d'Acierno and Robert Connolly, Cambridge, MA: MIT Press.

Terzidis, Kostas (2003) Expressive Form: A Conceptual Approach to Computational Design, London: Spon Press.

Terzidis, Kostas (2006) Algorithmic Architecture, Oxford: Architectural Press.

Van Bruggen, Coosje (1998) Frank O. Gehry: Guggenheim Museum Bilbao, New York: The Solomon R. Guggenheim Foundation.

Vattimo, Gianni (1988) *The End of Modernity, the End of the Project?,* trans. John Snyder, Cambridge: Polity.

Virilio, Paul (1997) Open Sky, trans. Julie Rose, London: Verso.

Warwick, Kevin (2002) I, Cyborg, London: Century.

Waters, John K. (2003) *Blobitecture: Waveform Architecture and Digital Design*, Gloucester, MA: Rockport Publishers.

Weinstock, Michael (2004) 'Morphogenesis and the Mathematics of Emergence', Emergence: Morphogenetic Design Strategies, Architectural Design, 74(3), May/June.

Whyte, Jennifer (2002) Virtual Reality and the Built Environment, Oxford: Architectural Press.

Wigley, Mark (1998) Constant's New Babylon: The Hyper-architecture of Desire, Rotterdam: Witte de With.

Wise, Chris (2004) 'Drunk in an Orgy of Technology', Emergence: Morphogenetic Design Strategies, Architectural Design, 74(3) May/June.

Yeang, Ken (1996) The Skyscraper Bioclimatically Considered, London: Academy Editions.

Zellner, Peter (1999) Hybrid Space: New Forms in Digital Architecture, London: Thames and Hudson.

websites

ecoLOGIC studio: www.ecologicstudio.com

ECOTECT: www.squ1.com

Gehry Technologies: www.gehrytechnologies.com

Greg Lynn form: www.glform.com

Maya: www.mayahtt.com

NOX: www.noxarch.com

Radiance: www.radiance.com

other

Interview with Professor Dean Hawkes at the Martin Centre, 23 November 2006